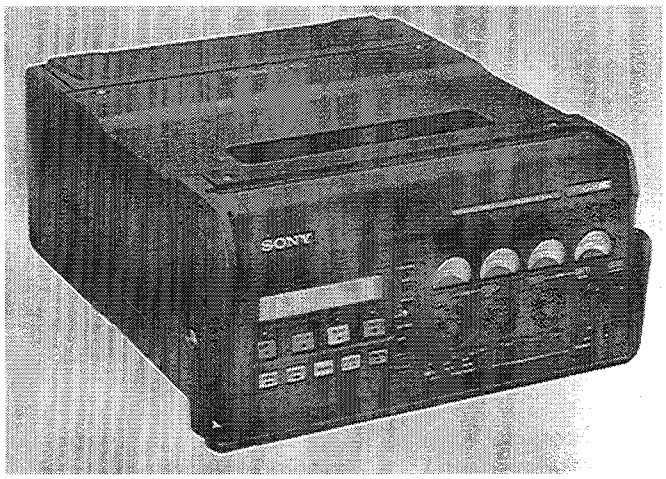
SONY®

PORTABLE VIDEOCASSETTE RECORDER

BVW-50P



BETACAM SP™

MAINTENANCE MANUAL
Volume 2 2nd Edition
Serial No. 10166 and Higher

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BLOCK DIAGRAM

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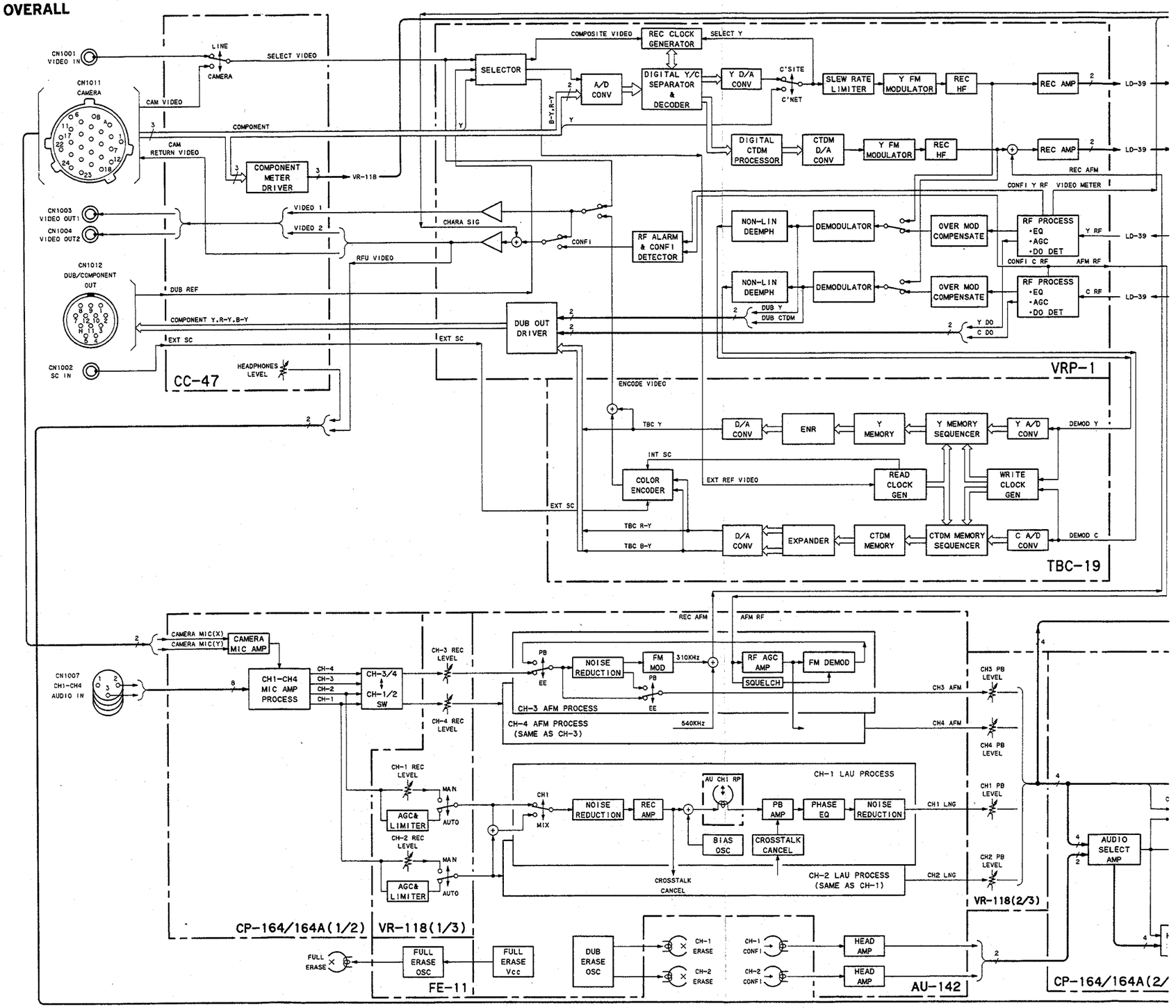
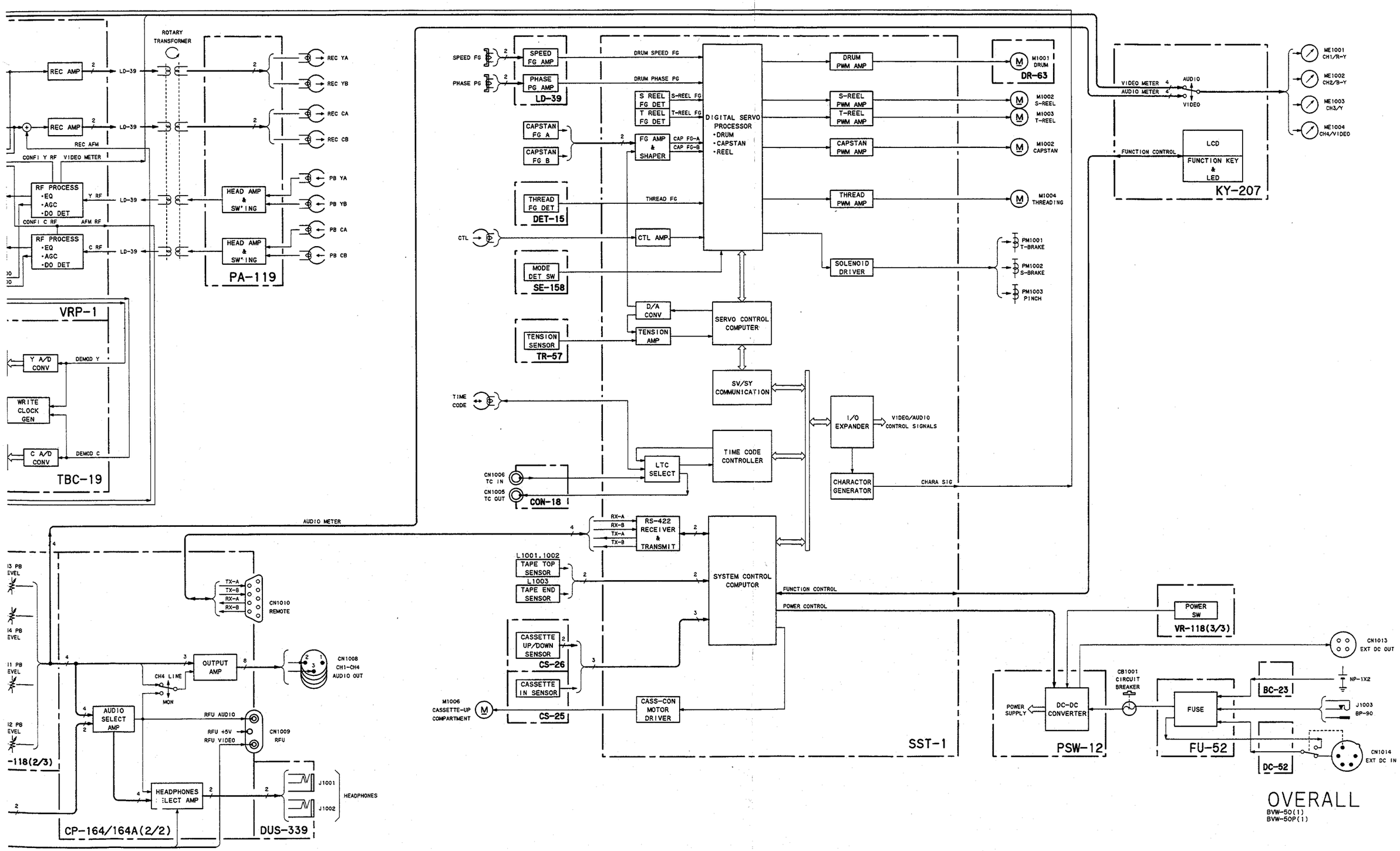
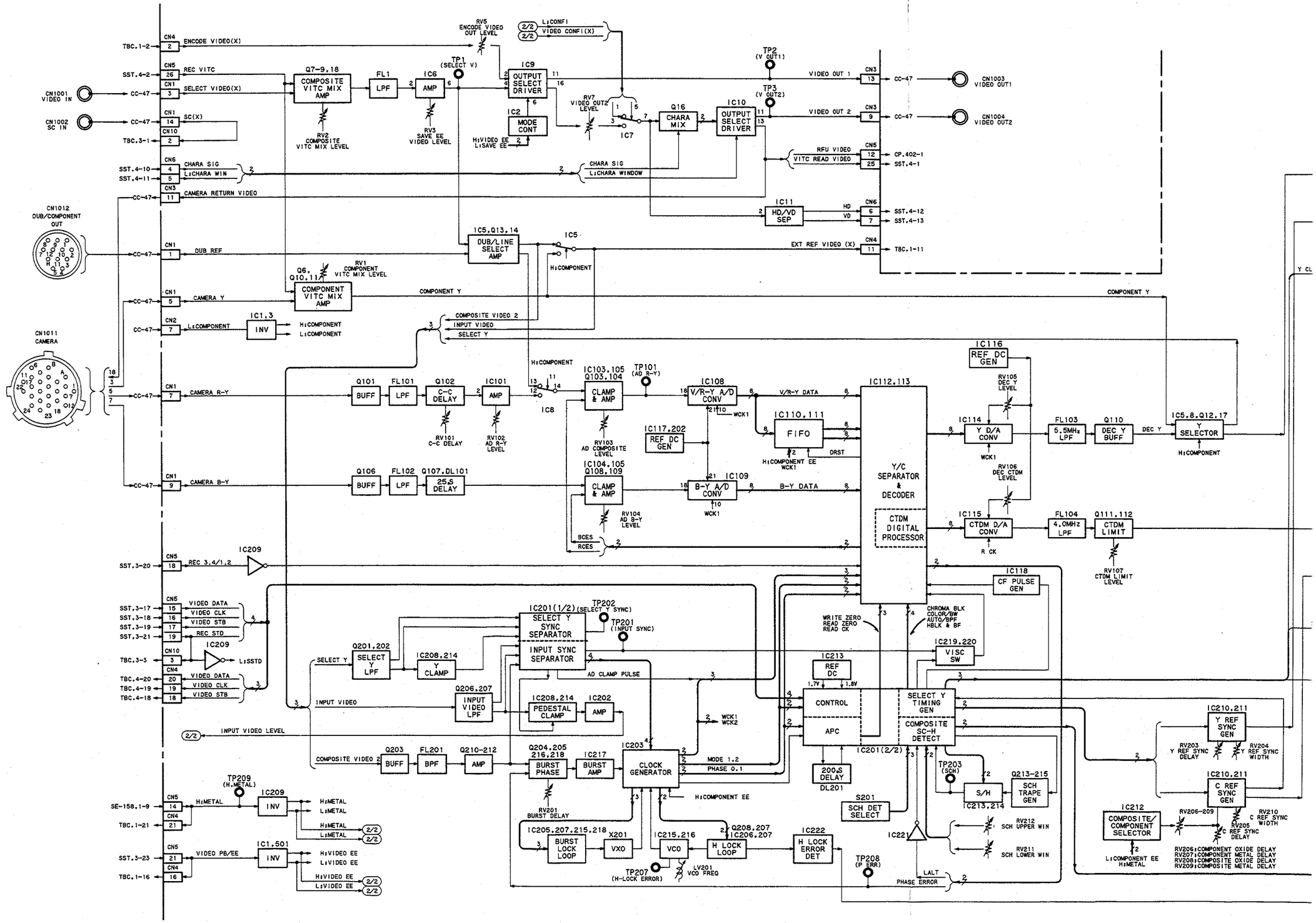


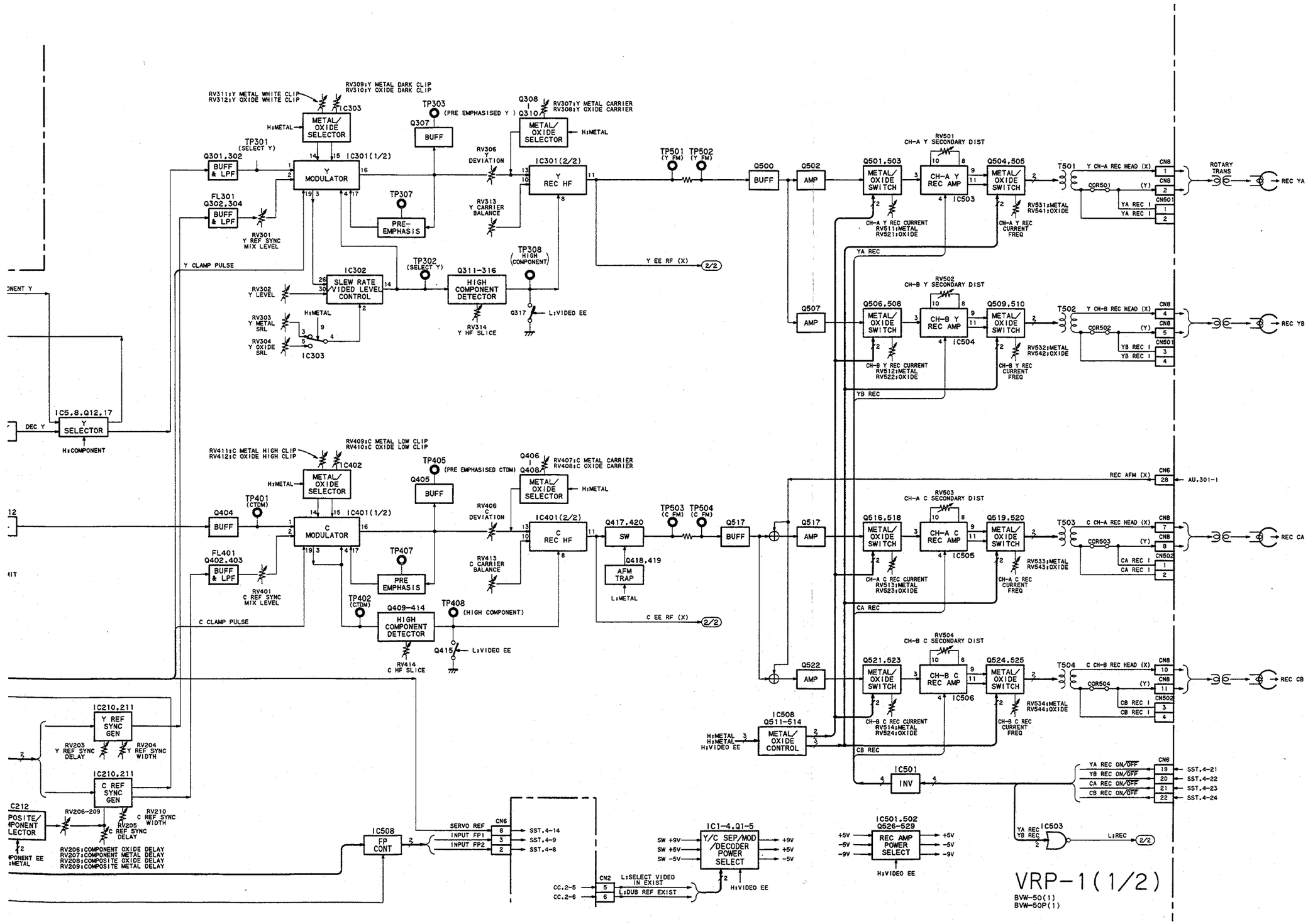


OVERALL

BVW-50(1)
BVW-50P(1)

Y/C SEPARATOR, CTDM
Y/C MODULATOR




RV311:Y METAL WHITE CLIP
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RV309:Y METAL DARK CLIP
RV310:Y OXIDE DARK CLIP
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METAL/ OXIDE SELECTOR
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SW +5V
SW -5V
+9V
+5V
-5V
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-5V
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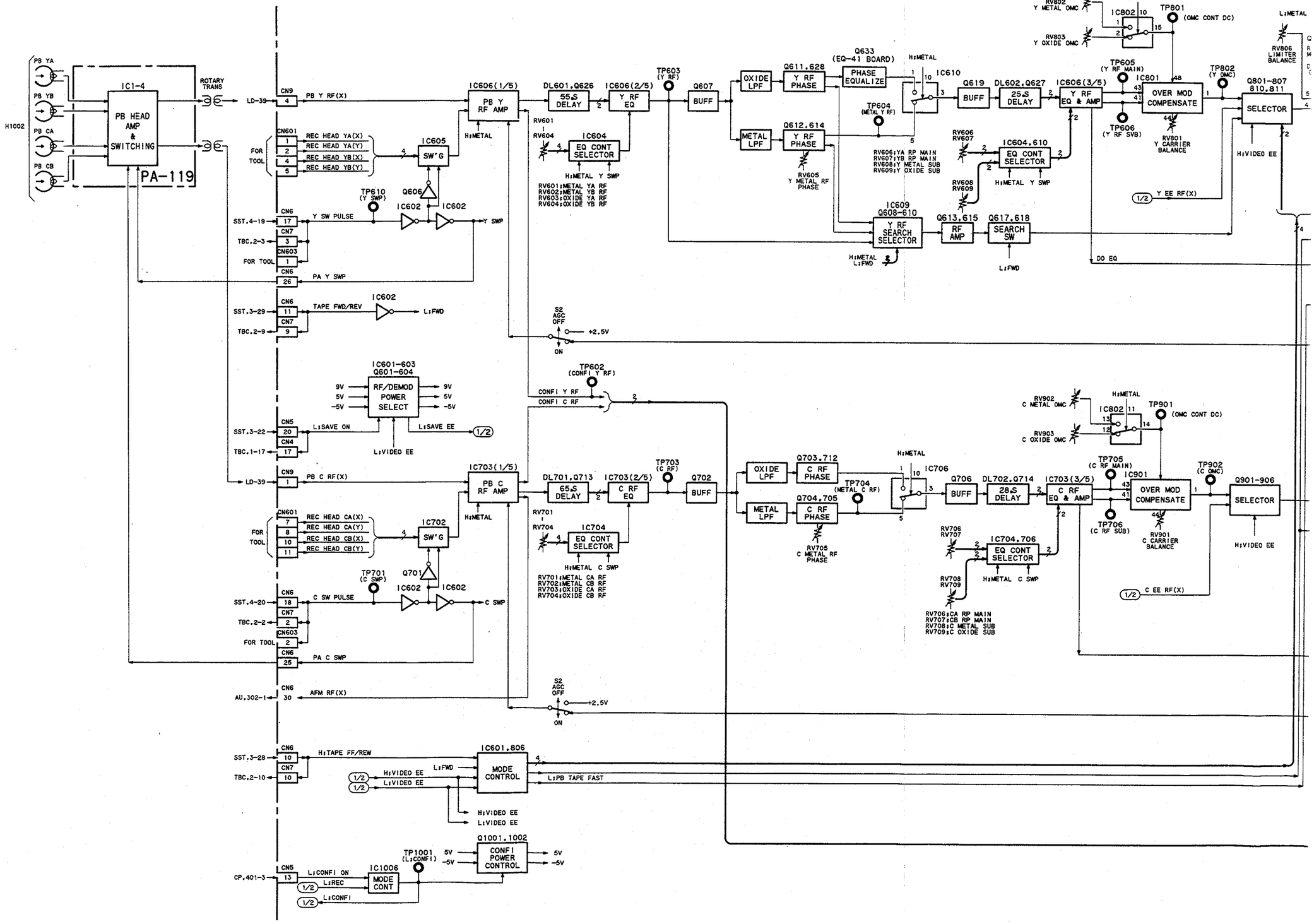
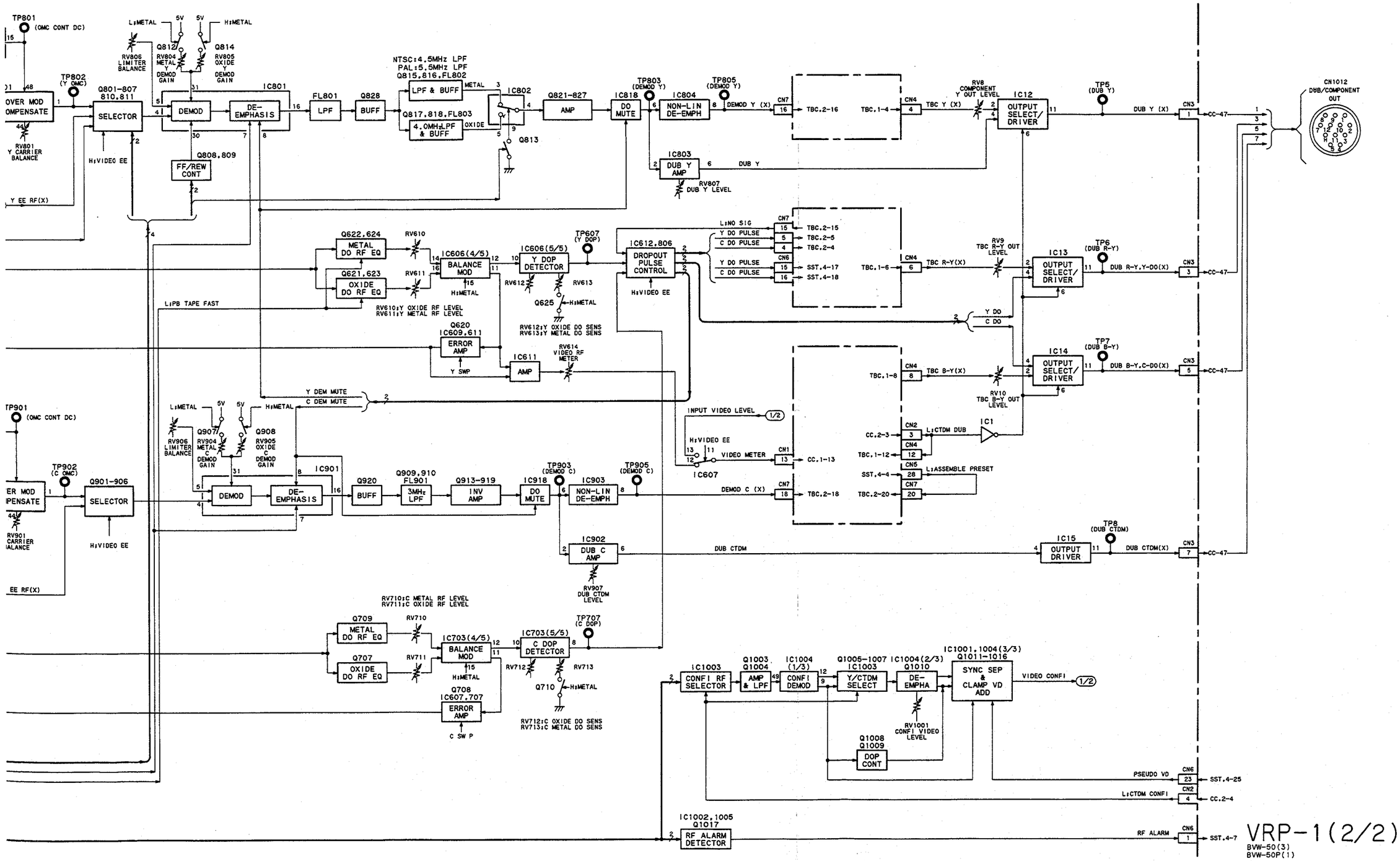
YB REC
IC503
L:REC
2/2
VRP-1(1/2)
BVW-50(1)
BVW-50P(1)

PB RF PROCESS, Y/C DEMODULATOR



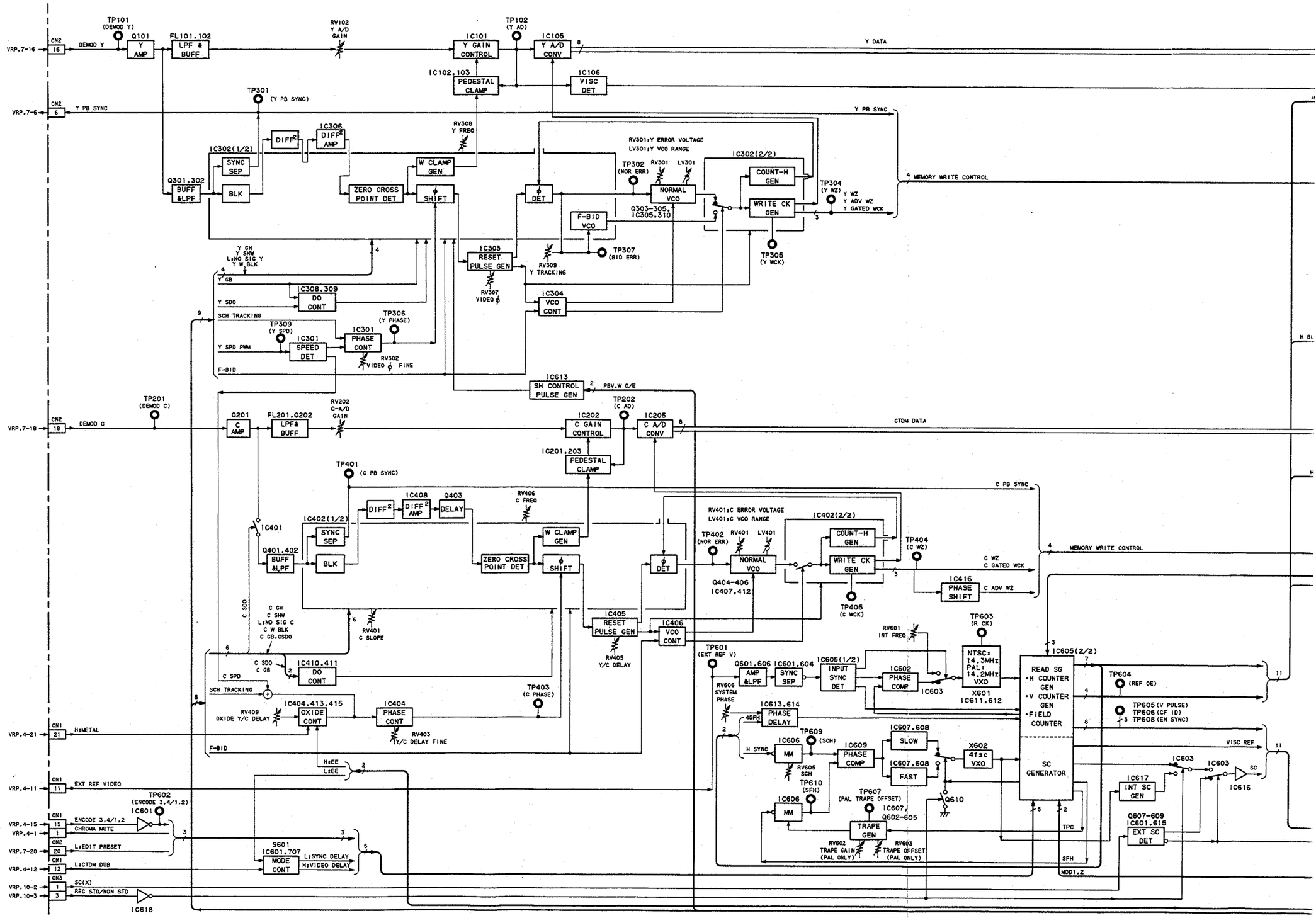


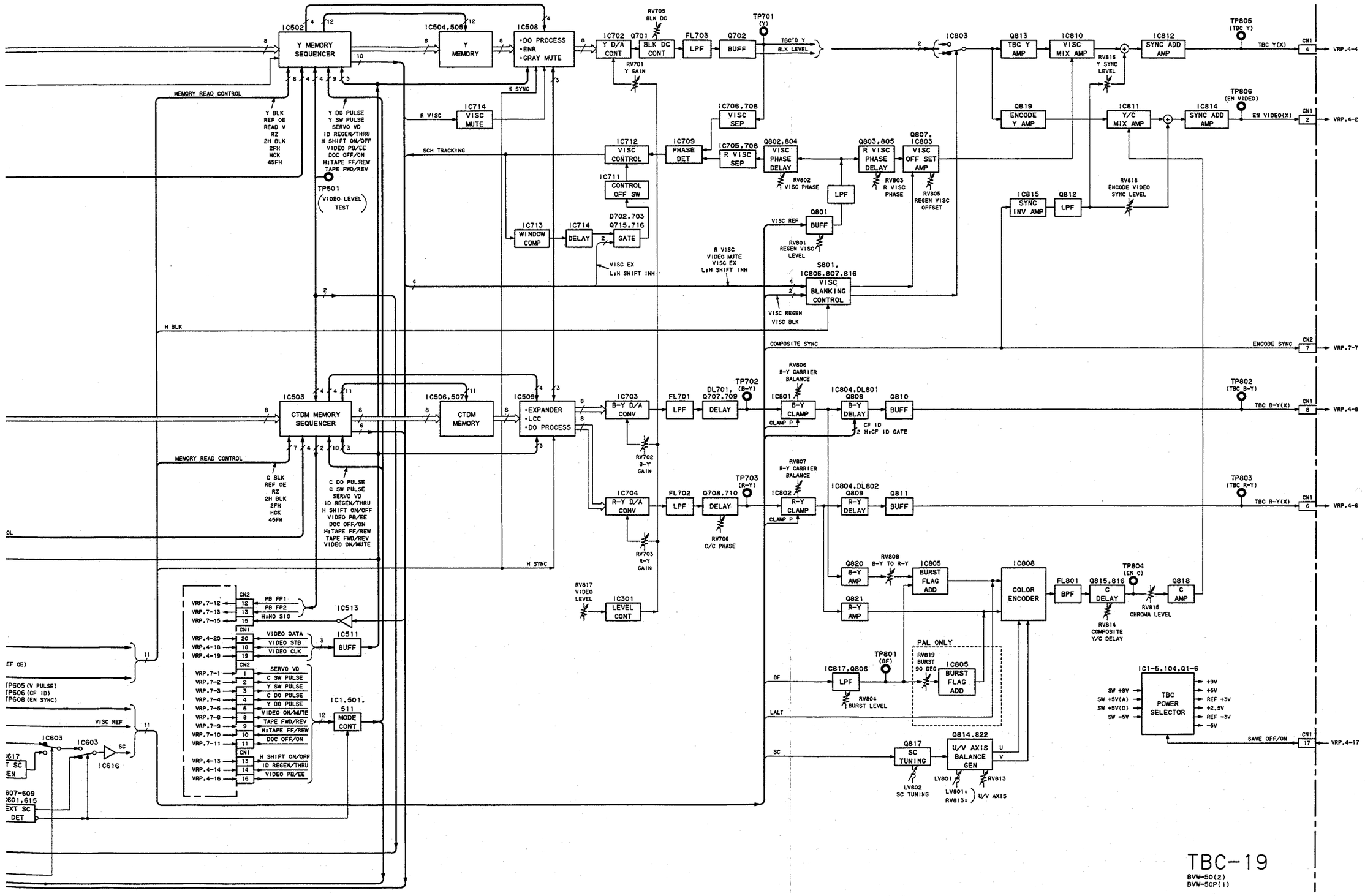
VRP-1(2/2)

BVW-50(3)
BVW-50P(1)

TBC TBC

TIME BASE CORRECTOR

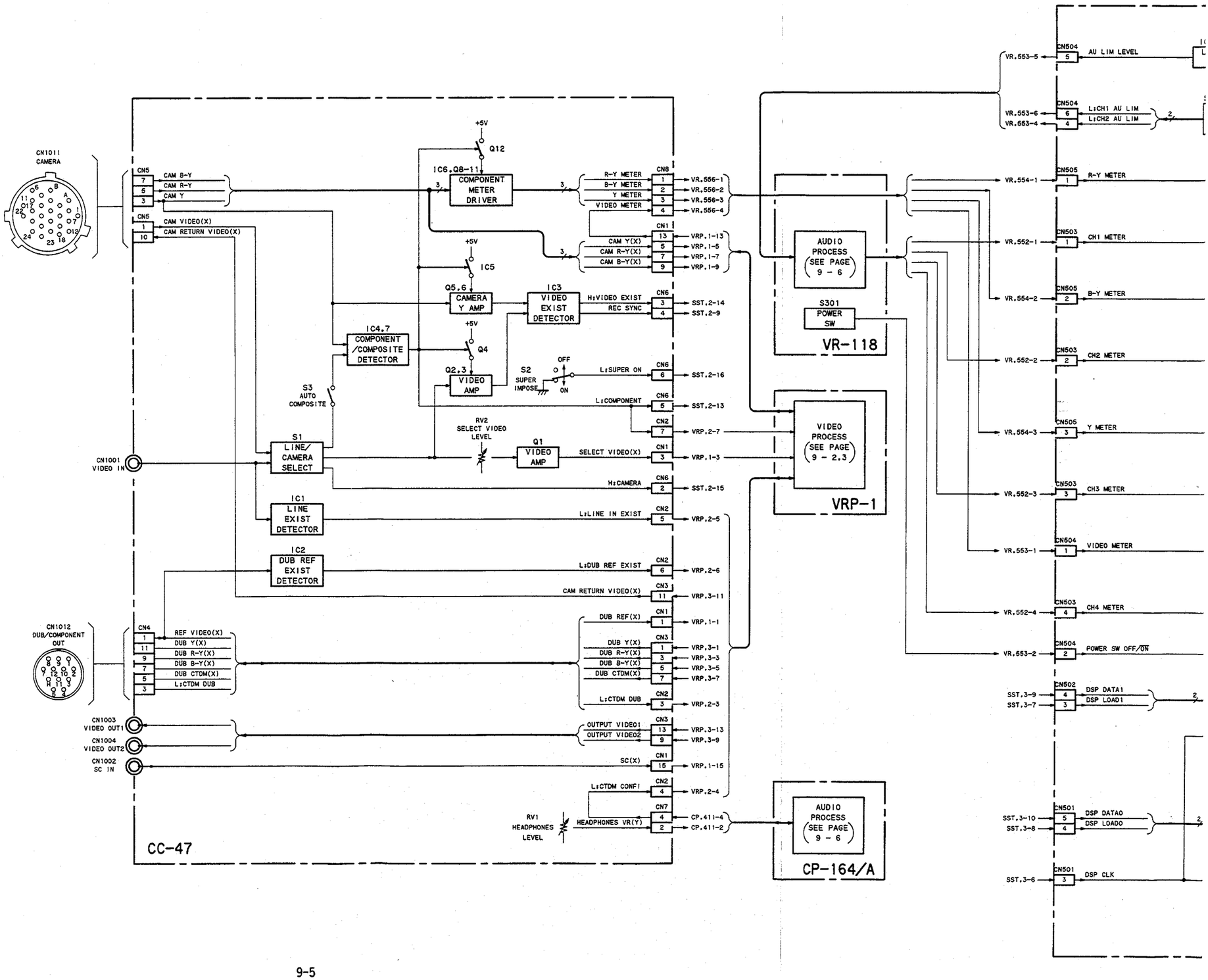


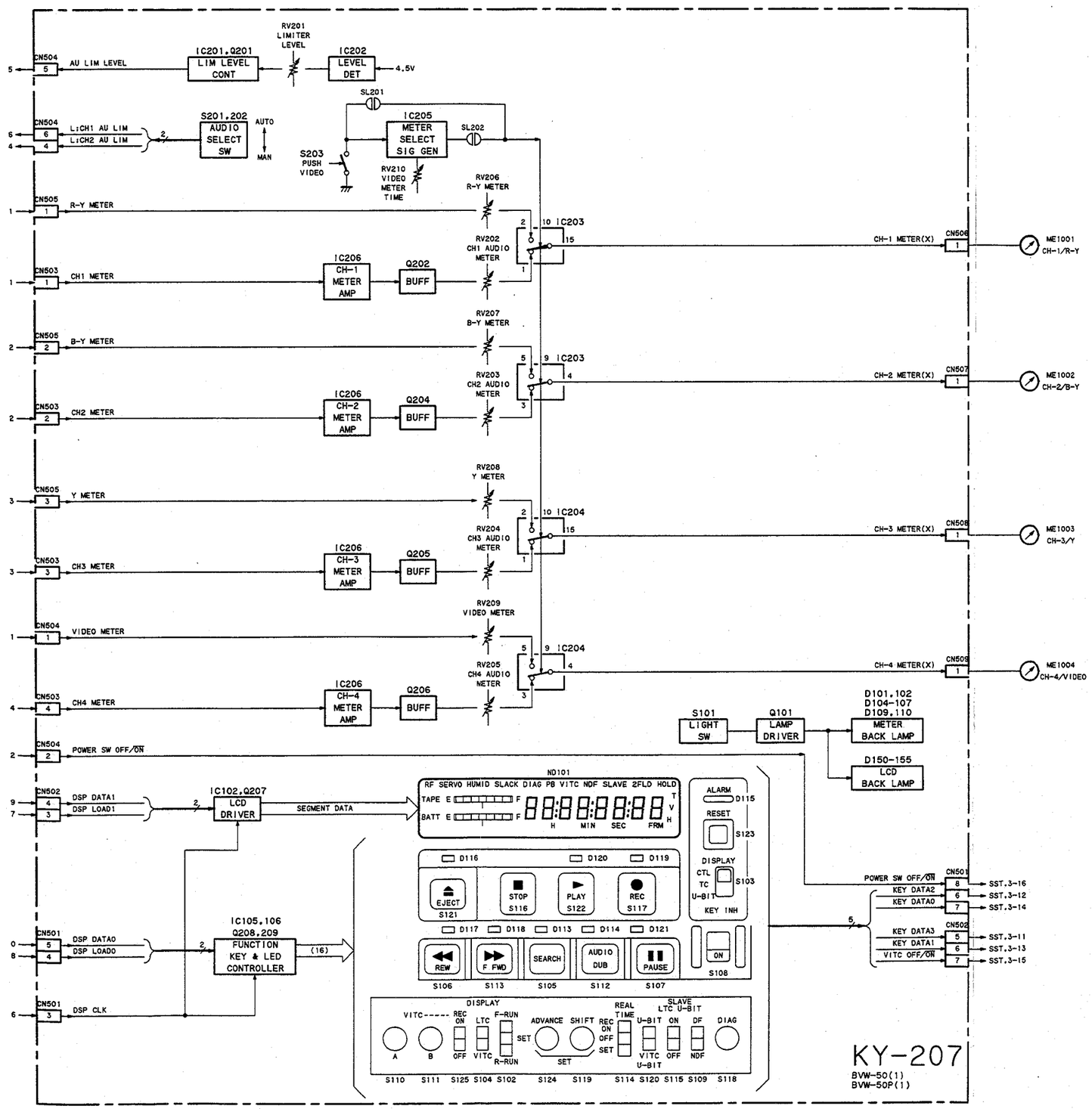


TBC-19

BVW-50(2)
BVW-50P(1)

VIDEO INPUT/SELECT, METER DRIVER, FUNCTION KEYBOARD




CN504 5 AU LIM LEVEL
IC201,Q201 LIM LEVEL CONT
RV201 LIMITER LEVEL
IC202 LEVEL DET
4.5V
CN504 6 L:CH1 AU LIM
4 L:CH2 AU LIM
S201,202 AUDIO SELECT SW
AUTO
MAN
SL201
IC205 METER SELECT SIG GEN
SL202
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RV210 VIDEO METER TIME
RV206 R-Y METER
CN505 1 R-Y METER
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ME1001 CH-1/R-Y
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Q202 BUFF
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CN505 2 B-Y METER
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ME1002 CH-2/B-Y
CN503 2 CH2 METER
IC206 CH-2 METER AMP
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CN505 3 Y METER
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ME1003 CH-3/Y
CN503 3 CH3 METER
IC206 CH-3 METER AMP
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D150-155 LCD BACK LAMP
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RF SERVO HUMID SLACK DIAG PB VITC NDF SLAVE 2FLD HOLD
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BATT E F
H MIN SEC FRM
T V H
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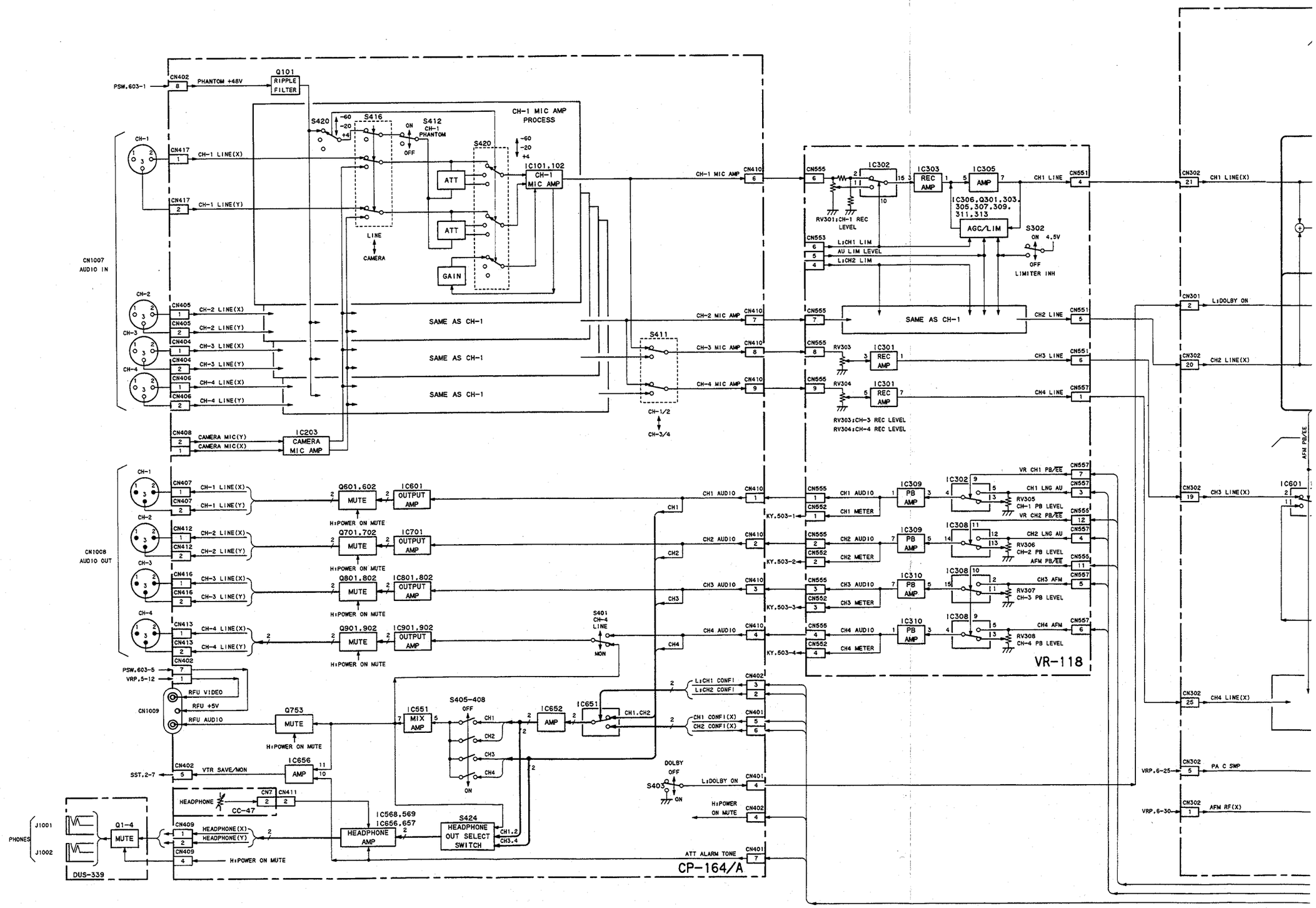
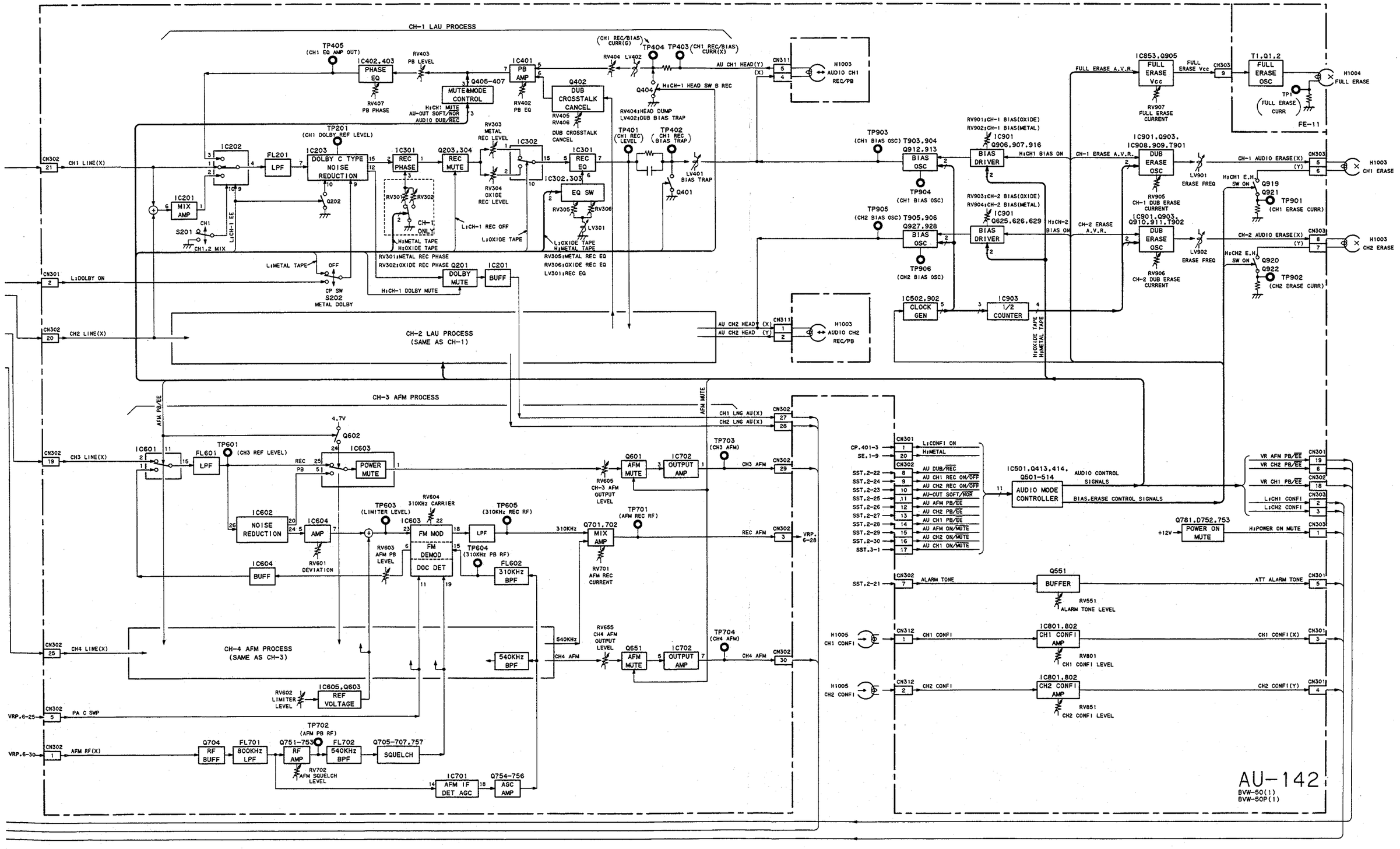
KY-207
BVW-50(1)
BVW-50P(1)

LNG AUDIO REC/PB SYSTEM
AFM REC/PB SYSTEM

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RV407 PB PHASE
IC401 PB AMP
RV402 PB EQ
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AU-OUT SOFT/NOR
AUDIO DUB/REC
Q402 DUB CROSSTALK CANCEL
RV405
RV406
DUB CROSSTALK CANCEL
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AU CH1 HEAD(Y) (X)
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RV301 RV302
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L:OXIDE TAPE
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CN302 29
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CH4 AFM
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Q704 RF BUFF
FL701 800KHz LPF
Q751-753 RF AMP
TP702 (AFM PB RF)
FL702 540KHz BPF
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RV702 AFM SQUELCH LEVEL
IC701 AFM IF DET AGC
Q754-756 AGC AMP
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TP906 (CH2 BIAS OSC)
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RV903:CH-2 BIAS(OXIDE)
RV904:CH-2 BIAS(METAL)
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H:CH-2 BIAS ON
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RV907 FULL ERASE CURRENT
FULL ERASE Vcc
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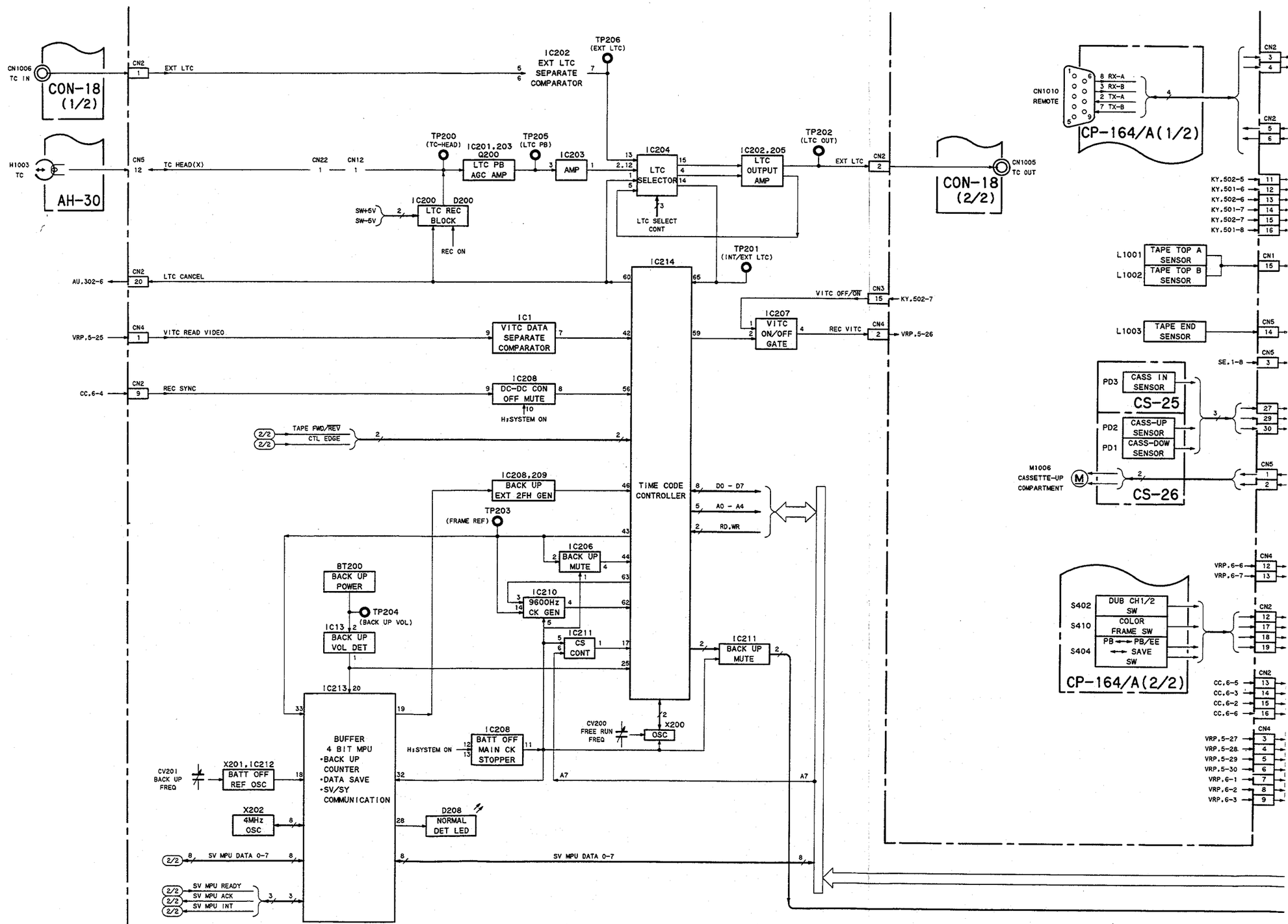
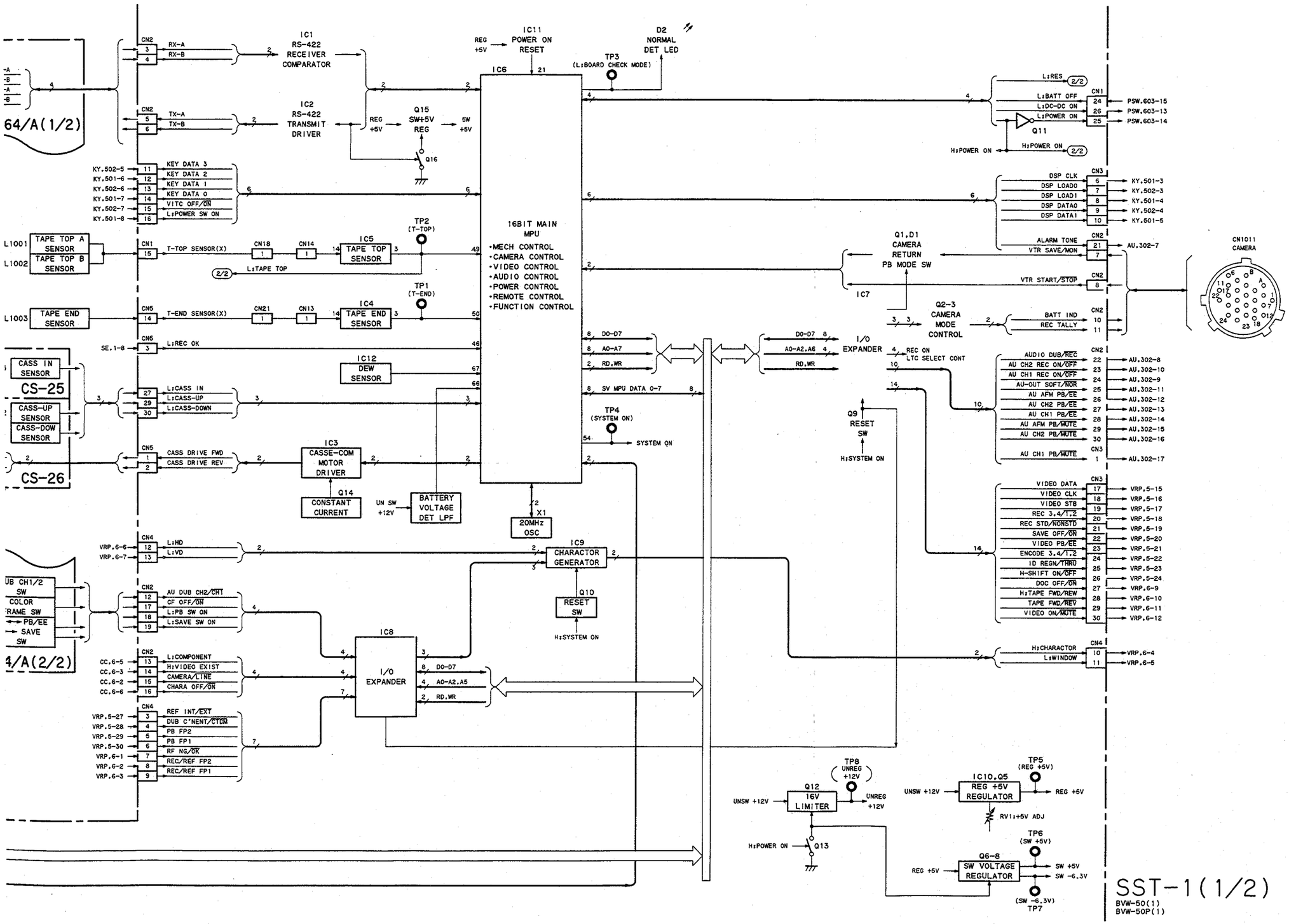
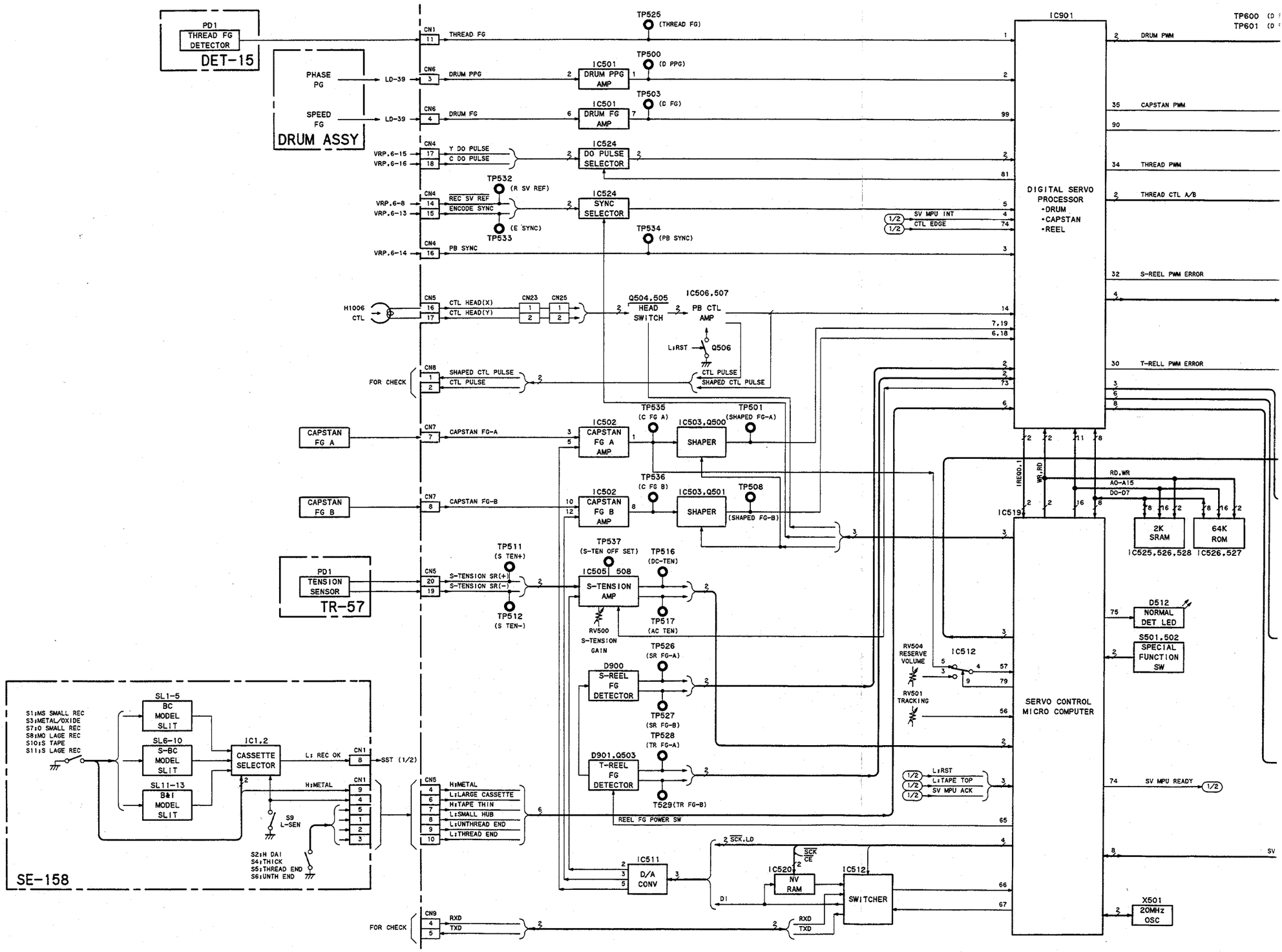
H1004 FULL ERASE
FE-11
CH-1 ERASE A.V.R.
IC901,Q903, IC908,909,T901 DUB ERASE OSC
RV905 CH-1 DUB ERASE CURRENT
LV901 ERASE FREQ
H:CH1 E.H SW ON
Q919 Q921
TP901 (CH1 ERASE CURR)
CH-1 AUDIO ERASE(X) (Y)
CN303 5 6
H1003 CH1 ERASE
CH-2 ERASE A.V.R.
IC901,Q903, Q910,911,T902 DUB ERASE OSC
RV906 CH-2 DUB ERASE CURRENT
LV902 ERASE FREQ
H:CH2 E.H SW ON
Q920 Q922
TP902 (CH2 ERASE CURR)
CH-2 AUDIO ERASE(X) (Y)
CN303 8 7
H1003 CH2 ERASE
CP.401-3 SE.1-9
CN301 1 20
L:CONFI ON
H:METAL
SST.2-22 SST.2-24 SST.2-23 SST.2-25 SST.2-26 SST.2-27 SST.2-28 SST.2-29 SST.2-30 SST.3-1
CN302 8 9 10 11 12 13 14 15 16 17
AU DUB/REC
AU CH1 REC ON/OFF
AU CH2 REC ON/OFF
AU-OUT SOFT/NOR
AU AFM PB/EE
AU CH2 PB/EE
AU CH1 PB/EE
AU AFM ON/MUTE
AU CH2 ON/MUTE
AU CH1 ON/MUTE
IC501,Q413,414, Q501-514 AUDIO MODE CONTROLLER
AUDIO CONTROL SIGNALS
BIAS,ERASE CONTROL SIGNALS
VR AFM PB/EE
VR CH2 PB/EE
VR CH1 PB/EE
L:CH1 CONFI
L:CH2 CONFI
CN301 19 6
CN302 18
CN303 2 3
Q781,D752,753 POWER ON MUTE
+12V
H:POWER ON MUTE
CN303 1
SST.2-21
CN302 7
ALARM TONE
Q551 BUFFER
RV551 ALARM TONE LEVEL
ATT ALARM TONE
CN301 5
H1005 CH1 CONFI
CN312 1
CH1 CONFI
IC801,802 CH1 CONFI AMP
RV801 CH1 CONFI LEVEL
CH1 CONFI(X)
CN301 3
H1005 CH2 CONFI
CN312 2
CH2 CONFI
IC801,802 CH2 CONFI AMP
RV851 CH2 CONFI LEVEL
CH2 CONFI(Y)
CN301 4
AU-142
BVW-50(1)
BVW-50P(1)

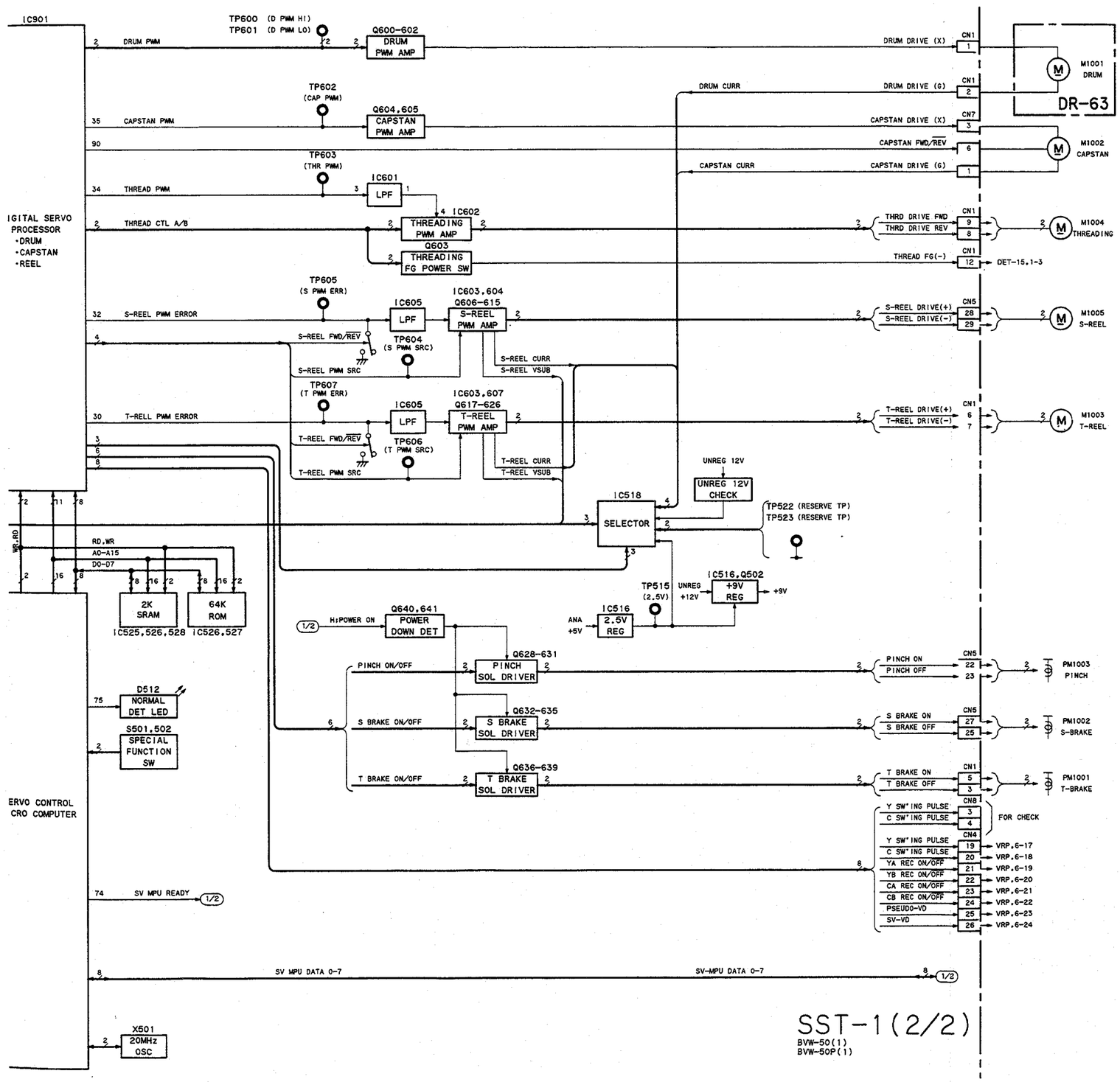
SYSTEM CONTROL
TIME CODE GENERATOR/READER




64/A(1/2)
IC1 RS-422 RECEIVER COMPARATOR
IC2 RS-422 TRANSMIT DRIVER
IC11 POWER ON RESET
IC6
TP3 (L:BOARD CHECK MODE)
D2 NORMAL DET LED
Q15 SW+5V REG
Q16
KEY DATA 3
KEY DATA 2
KEY DATA 1
KEY DATA 0
VITC OFF/ON
L:POWER SW ON
16BIT MAIN MPU
•MECH CONTROL
•CAMERA CONTROL
•VIDEO CONTROL
•AUDIO CONTROL
•POWER CONTROL
•REMOTE CONTROL
•FUNCTION CONTROL
TAPE TOP A SENSOR
TAPE TOP B SENSOR
IC5 TAPE TOP SENSOR
TP2 (T-TOP)
L:TAPE TOP
TAPE END SENSOR
IC4 TAPE END SENSOR
TP1 (T-END)
L:REC OK
IC12 DEW SENSOR
CASS IN SENSOR
CASS-UP SENSOR
CASS-DOW SENSOR
CS-25
CS-26
IC3 CASSE-COM MOTOR DRIVER
CONSTANT CURRENT
BATTERY VOLTAGE DET LPF
20MHz OSC
X1
TP4 (SYSTEM ON)
SYSTEM ON
Q9 RESET SW
H:SYSTEM ON
Q1,D1 CAMERA RETURN PB MODE SW
IC7
Q2-3 CAMERA MODE CONTROL
I/O EXPANDER
REC ON
LTC SELECT CONT
IC9 CHARACTOR GENERATOR
Q10 RESET SW
IC8 I/O EXPANDER
L:RES
L:BATT OFF
L:DC-DC ON
L:POWER ON
Q11
H:POWER ON
PSW.603-15
PSW.603-13
PSW.603-14
DSP CLK
DSP LOADO
DSP LOAD1
DSP DATAO
DSP DATA1
KY.501-3
KY.502-3
KY.501-4
KY.502-4
KY.501-5
ALARM TONE
VTR SAVE/MON
AU.302-7
VTR START/STOP
BATT IND
REC TALLY
CN1011 CAMERA
AUDIO DUB/REC
AU CH2 REC ON/OFF
AU CH1 REC ON/OFF
AU-OUT SOFT/NOR
AU AFM PB/EE
AU CH2 PB/EE
AU CH1 PB/EE
AU AFM PB/MUTE
AU CH2 PB/MUTE
AU CH1 PB/MUTE
AU.302-8
AU.302-10
AU.302-9
AU.302-11
AU.302-12
AU.302-13
AU.302-14
AU.302-15
AU.302-16
AU.302-17
VIDEO DATA
VIDEO CLK
VIDEO STB
REC 3.4/1.2
REC STD/NONSTD
SAVE OFF/ON
VIDEO PB/EE
ENCODE 3.4/1.2
ID REGN/THRO
H-SHIFT ON/OFF
DOC OFF/ON
H:TAPE FWD/REW
TAPE FWD/REV
VIDEO ON/MUTE
VRP.5-15
VRP.5-16
VRP.5-17
VRP.5-18
VRP.5-19
VRP.5-20
VRP.5-21
VRP.5-22
VRP.5-23
VRP.5-24
VRP.6-9
VRP.6-10
VRP.6-11
VRP.6-12
H:CHARACTOR
L:WINDOW
VRP.6-4
VRP.6-5
4/A(2/2)
L:COMPONENT
H:VIDEO EXIST
CAMERA/LINE
CHARA OFF/ON
REF INT/EXT
DUB C'NENT/CTDM
PB FP2
PB FP1
RF NG/OK
REC/REF FP2
REC/REF FP1
TP8 (UNREG +12V)
Q12 16V LIMITER
Q13
IC10,Q5 REG +5V REGULATOR
RV1:+5V ADJ
TP5 (REG +5V)
TP6 (SW +5V)
Q6-8 SW VOLTAGE REGULATOR
TP7 (SW -6.3V)
SST-1(1/2)
BVW-50(1)
BVW-50P(1)

DRUM/CAPSTAN/REEL SERVO





SST-1(2/2)

BVW-50(1)
BVW-50P(1)

SECTION 10
SEMICONDUCTOR PIN ASSIGNMENT

ICs, transistors and diodes whoses functions are equivalent are described here. Therefore, incompatible device names may be described together. For parts replacement, refer to the Spare Parts section in this manual.

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CXA1077M	10-4
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MC14052BF	10-14
MC14053BF	10-15
MC14066BF	10-14
MC14069UBF	10-15
MC34182M	10-15
MC34184M	10-15
MC74HC164F	10-15
MC74HC4053F	10-15
NJM2068MD	10-16
NJM386BM	10-16
NJM431U	10-16
NJM5534M	10-16
RC2041MD	10-16
RC4560M	10-16
RC5532M	10-16
RC78L05A	10-16
S-8053ALB	10-16
S-8054HN	10-16
S-81230AG-RB	10-16
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SN74HC00ANS	10-16
SN74HC02ANS	10-17
SN74HC04ANS	10-17
SN74HC08ANS	10-17
SN74HC163ANS	10-17
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DA204U	10-22
DAN202U	10-22
DAP202U	10-22
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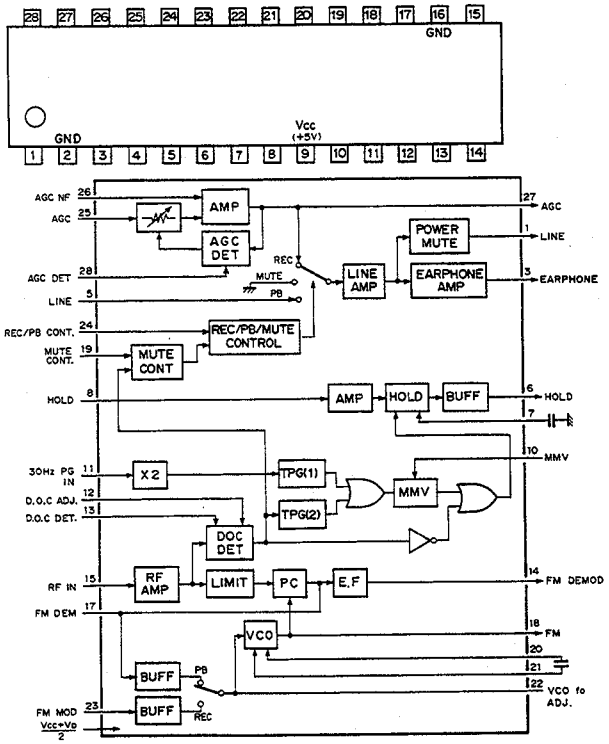
The circuit diagram of each IC is obtained from the IC data book published by the manufacturer.

AN6391NS (MATSUSHITA) FLAT PACKAGE

AUDIO FM REC/PB AMP

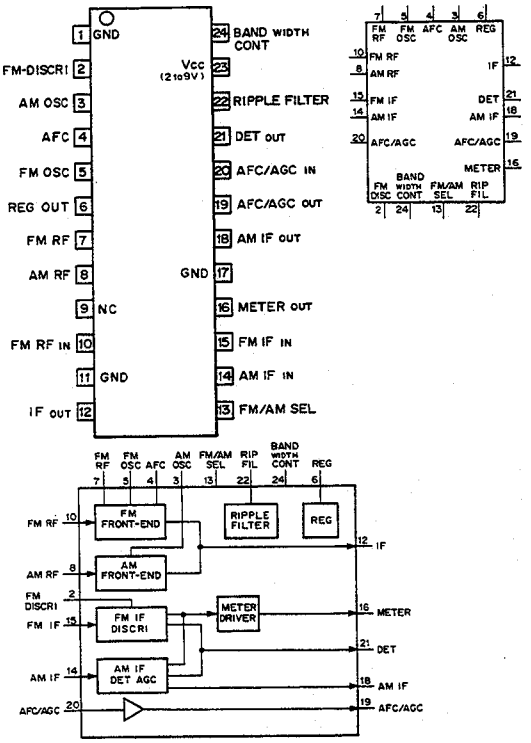
– TOP VIEW –



CX20111 (SONY) FLAT PACKAGE

FM/AM FRONT-END/IF/DET PROCESSOR

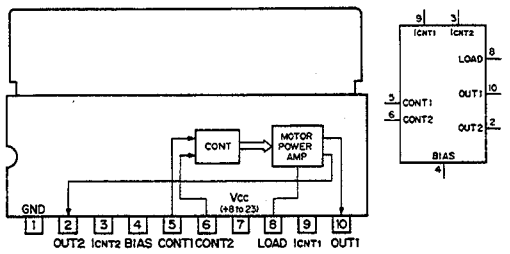
– TOP VIEW –



BA6229 (ROHM)

BI-DIRECTIONAL MOTOR DRIVER

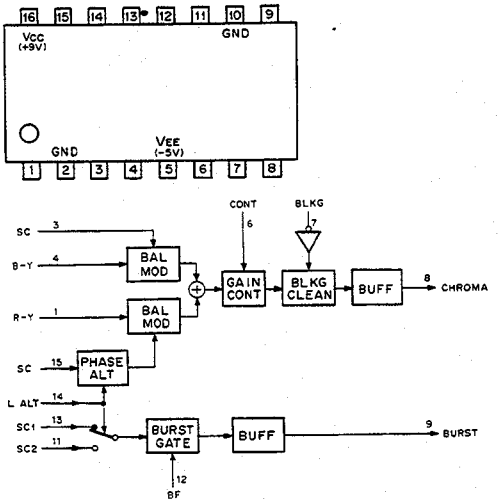
– SIDE VIEW –



CX22017 (SONY)

VIDEO SIGNAL PROCESSOR

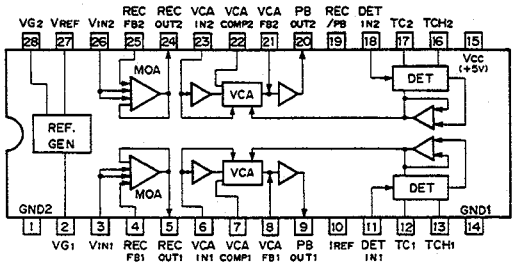
– TOP VIEW –



CX20099 (SONY) FLAT PACKAGE

VOLTAGE CONTROLLED AMP/DETECTOR/MAIN OPERATIONAL AMP

– TOP VIEW –

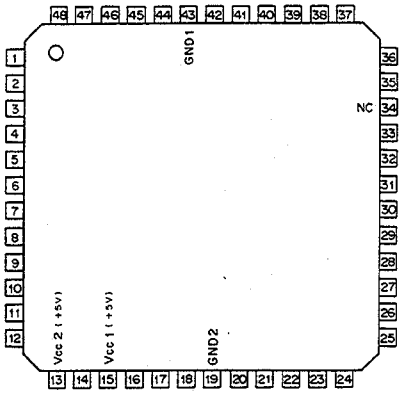


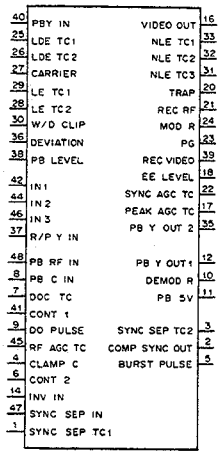
DET ; DETECTOR
TC ; TIME CONSTANT
TCH; TIME CONSTANT HOLD
VCA ; VOLTAGE CONTROLLED AMP

CX20030 (SONY) FLAT PACKAGE

VIDEO Y SIGNAL PROCESSOR

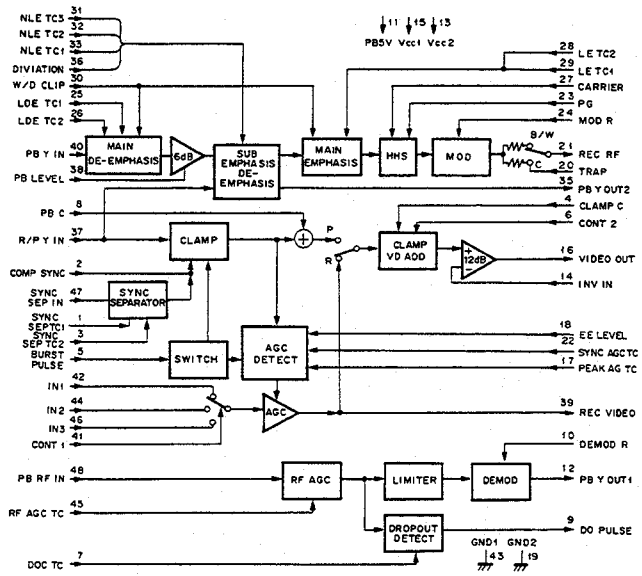
– TOP VIEW –





(V_{DD} = + 5V)

PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL
1	I	SYNC SEP TC1	17	I	PEAK AGC TC	33	I	NLE TC1
2	O	COMP SYNC	18	I	EE LEVEL	34	–	NC
3	I	SYNC SEP TC2	19	–	GND2	35	O	PB Y OUT2
4	I	CLAMP C	20	I	TRAP	36	I	DEVIATION
5	I	BURST PULSE	21	O	REC RF	37	I	R/P Y IN
6	I	CONT2	22	I	SYNC AGC TC	38	I	PB LEVEL
7	I	DOC TC	23	I	PG	39	O	REC VIDEO
8	I	PB C	24	I	MOD R	40	I	PB Y IN
9	O	DO PULSE	25	I	LDE TC1	41	I	CONT1
10	I	DEMOD R	26	I	LDE TC2	42	I	IN1
11	I	PB 5V	27	I	CARRIER	43	–	GND1
12	O	PB Y OUT1	28	I	LE TC2	44	I	IN2
13	–	Vcc2	29	I	LE TC1	45	I	RF AGC TC
14	I	INV IN	30	I	W/D CLIP	46	I	IN3
15	–	Vcc1	31	I	NLE TC3	47	I	SYNC SEP IN
16	O	VIDEO OUT	32	I	NLE TC2	48	I	PB RF IN



INPUT

BURST PULSE	: BURST PULSE INPUT
CARRIER	: FM MODULATOR CARRIER CONTROL INPUT
CLAMP C	: EXTERNAL CAPACITOR FOR CLAMPING INPUT
CONT 1	: INTERNAL SWITCH CONTROL INPUT
CONT 2	: MUTING AND VD-ADD CONTROL INPUT
DEMOD R	: EXTERNAL RESISTOR FOR FM DEMODULATOR INPUT
DEVIATION	: DEVIATION CONTROL INPUT
DOC TC	: EXTERNAL CAPACITOR FOR DROPOUT DETECTION INPUT
EE LEVEL	: SYNC AGC CONTROL INPUT
IN 1 – IN 3	: RECORDING VIDEO SIGNAL INPUTS
INV IN	: INVERTING INPUT FOR VIDEO CIRCUIT
LDE TC1,TC2	: EXTERNAL RESISTOR FOR LINEAR DE-EMPHASIS INPUTS
LE TC1,TC2	: EXTERNAL CR FOR LINEAR EMPHASIS INPUTS
MOD R	: EXTERNAL RESISTOR FOR FM MODULATOR INPUT
NLE TC1 – NLE TC3	: EXTERNAL CAPACITOR FOR NON-LINEAR EMPHASIS INPUTS
PB 5V	: POWER FOR PLAYBACK SYSTEM INPUT
PB C	: PB CHROMA INPUT AND M/C CONTROL INPUT
PB LEVEL	: PB Y OUT2 SIGNAL CONTROL INPUT
PB RF IN	: PB RF (FM) INPUT
PB Y IN	: PB Y SIGNAL FOR DE-EMPHASIS INPUT
PEAK AGC TC	: EXTERNAL CR INPUT FOR PEAK AGC
PG	: PG (30Hz) SIGNAL INPUT
RF AGC TC	: EXTERNAL CR FOR RF AGC INPUT
R/P Y IN	: Y SIGNAL FOR CLAMPING INPUT
SYNC AGC TC	: EXTERNAL CR INPUT FOR SYNC AGC
SYNC SEP IN	: SYNC SEPARATION SIGNAL INPUT
SYNC SEP TC1,TC2	: EXTERNAL CR INPUT FOR SYNC SEPARATION
TRAP	: TRAP INPUT
W/D CLIP	: LINEAR EMPHASIS AND W/D CLIP CONTROL INPUT

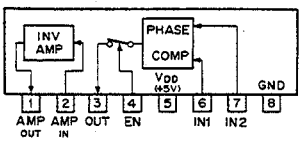
OUTPUT

COMP SYNC	: COMPOSITE SYNC OUTPUT
DO PULSE	: DROPOUT PULSE OUTPUT
PB Y OUT1	: FREQUENCY DEMODULATOR OUTPUT
PB Y OUT2	: PB Y OUTPUT
REC RF	: Y-FM SIGNAL OUTPUT
REC VIDEO	: AMPLIFIED Y SIGNAL OUTPUT
VIDEO OUT	: VIDEO OUTPUT

CX23065A (SONY)

N-MOS PHASE COMPARATOR WITH INVERSION AMPLIFIER

– PRINTED SIDE VIEW –

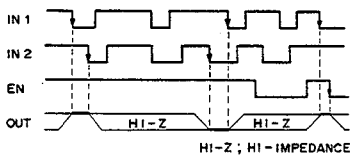


EN	OUT
1	ACTIVE
0	HIGH IMPEDANCE

1; HIGH LEVEL

0; LOW LEVEL

TIMING CHART

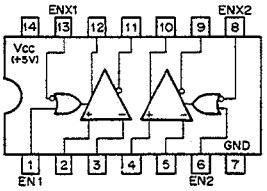


HI-Z ; HI-IMPEDANCE

CXA1077M (SONY)

DUAL DIFFERENTIAL PRE-AMPLIFIER

– TOP VIEW –



EN	ENX	OUTPUT
0	0	OUT
0	1	HI-Z
1	0	OUT
1	1	OUT

0 ; LOW LEVEL

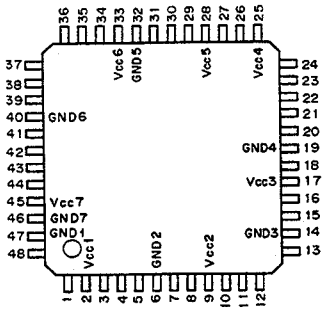
1 ; HIGH LEVEL

HI-Z; HIGH IMPEDANCE

CXA1370Q (SONY)

DEMODULATOR/OVER MODULATION COMPENSATOR

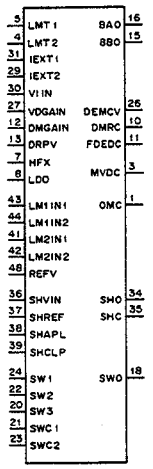
– TOP VIEW –



(Vcc = + 5V)

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGANL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	O	OMC	13	I	DRPV	25	–	Vcc4	37	I	SHREF
2	–	Vcc1	14	–	GND3	26	O	DEMCV	38	I	SHAPL
3	O	MVDC	15	O	BBO	27	I	VDGAIN	39	I	SHCLP
4	I	LMT2	16	O	BAO	28	–	Vcc5	40	–	GND6
5	I	LMT1	17	–	Vcc3	29	I	IEXT2	41	I	LM2IN1
6	–	GND2	18	O	SWO	30	I	VIIN	42	I	LM2IN2
7	I	HFX	19	–	GND4	31	I	IEXT1	43	I	LM1IN1
8	I	LDO	20	I	SW3	32	–	GND5	44	I	LM1IN2
9	–	Vcc2	21	I	SWC1	33	–	Vcc6	45	–	Vcc7
10	O	DMRC	22	I	SW2	34	O	SHO	46	–	GND7
11	O	FDEDC	23	I	SWC2	35	O	SHC	47	–	GND1
12	I	DMGAIN	24	I	SW1	36	I	SHVIN	48	I	REFV

Vcc1, GND1; FOR OVER MODULATION COMPENSATOR
Vcc2, GND2; FOR DEMODULATOR
Vcc3, GND3; FOR BUFFER
Vcc4, GND4; FOR 3 INPUT SWITCH
Vcc5, GND5; FOR DEMODULATOR
Vcc6, GND6; FOR SAMPLE HOLD
Vcc7, GND7; FOR LIMITER

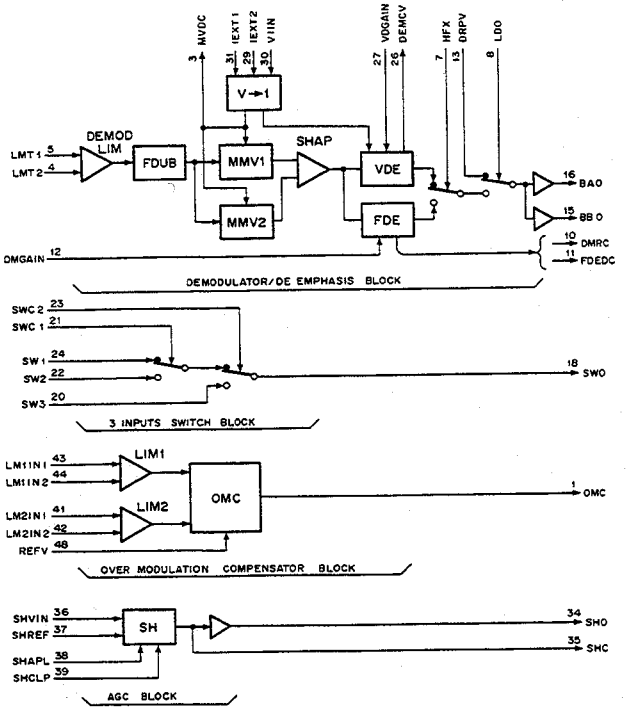


INPUT

DMGAIN	; FOR RESISTOR
DRPV	; VIDEO SIGNAL
HFX	; SWITCH CONTROL
IEXT1, 2	; FOR RESISTOR
LM1, 2	; OVER MODULATION COMPENSATE LIMITER
LMT1, 2	; DEMODULATE LIMITER
LDO	; SWITCH CONTROL
REFV	; REFERENCE VOLTAGE
SHAPL	; FOR RESISTOR
SHCLP	; SAMPLE HOLD PULSE
SHREF	; SAMPLE HOLD REFERENCE VOLTAGE
SHVIN	; SAMPLE HOLD DEMODULATE VIDEO
SW1 – 3	; 3 INPUT SWITCH
SWC1, 2	; 3 INPUT SWITCH CONTROL
VDGAIN	; GAIN CONTROL VOLTAGE
VIIN	; V→I CONTROL VOLTAGE

OUTPUT

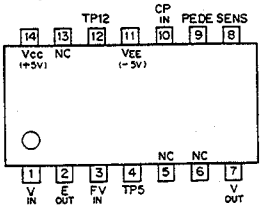
BAO, BBO	; DEMODULATOR
DEMCV	; VARIABLE DEEMPHASIS CONSTANT
DMRC	; FIXED DEEMPHASIS CONSTANT
FDEDC	; FIXED DEEMPHASIS DECOUPLING
MVDC	; MONOMULTI DECOUPLING
OMC	; OVER MODULATION COMPENSATER
SHC	; SAMPLE HOLD CAPACITY
SHO	; SAMPLE HOLD
SWO	; 3 INPUT SWITCH

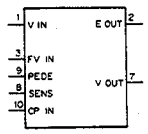


CXA1432M (SONY) FLAT PACKAGE

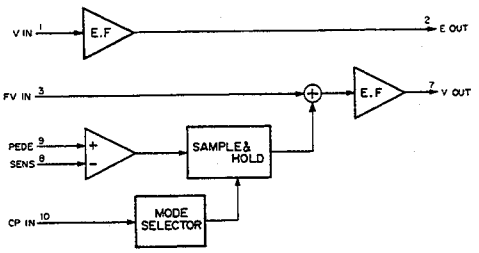
VIDEO SIGNAL CLAMPER

– TOP VIEW –





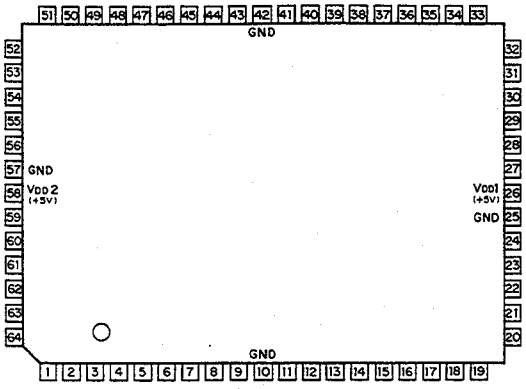
CP IN	; CLAMP PULSE INPUT
E OUT	; BUFFER AMP OUTPUT
FV IN	; FLOATING VIDEO SIGNAL INPUT
PEDE	; CLAMP LEVEL DC INPUT
SENS	; CLAMP POINT SIGNAL INPUT
TP5, TP12	; FOR TEST
V IN	; VIDEO SIGNAL INPUT
V OUT	; VIDEO SIGNAL OUTPUT



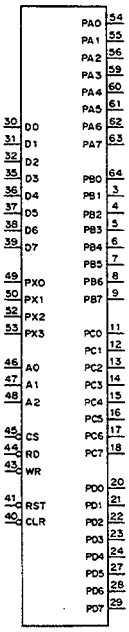
CXD1095Q (SONY) FLAT PACKAGE

C-MOS I/O PORT EXPANDER

– TOP VIEW –



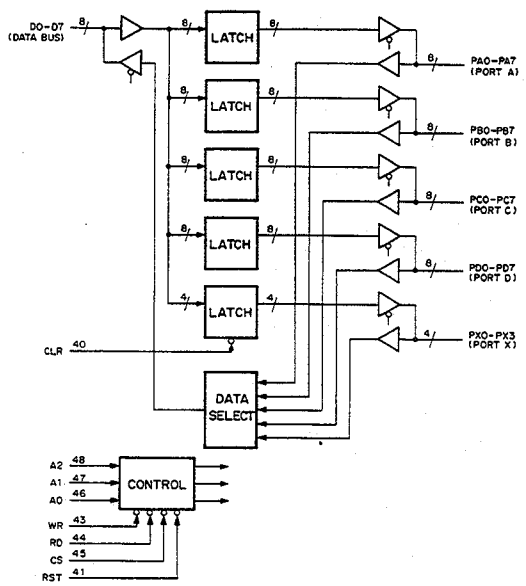
PIN NO.	IN	OUT	SYMBOL	PIN NO.	IN	OUT	SYMBOL	PIN NO.	IN	OUT	SYMBOL	PIN NO.	IN	OUT	SYMBOL
1			NC	17	O	O	PC6	33			NC	49	O	O	PX0
2			NC	18	O	O	PC7	34			NC	50	O	O	PX1
3	O	O	PB1	19			NC	35	O	O	D3	51			NC
4	O	O	PB2	20	O	O	PD0	36	O	O	D4	52	O	O	PX2
5	O	O	PB3	21	O	O	PD1	37	O	O	D5	53	O	O	PX3
6	O	O	PB4	22	O	O	PD2	38	O	O	D6	54	O	O	PA0
7	O	O	PB5	23	O	O	PD3	39	O	O	D7	55	O	O	PA1
8	O	O	PB6	24	O	O	PD4	40	O		CLR	56	O	O	PA2
9	O	O	PB7	25			GND	41	O		RST	57			GND
10			GND	26	O		VDD(+5V)	42			GND	58	O		VDD(+5V)
11	O	O	PC0	27	O	O	PD5	43	O		WR	59	O	O	PA3
12	O	O	PC1	28	O	O	PD6	44	O		RD	60	O	O	PA4
13	O	O	PC2	29	O	O	PD7	45	O		CS	61	O	O	PA5
14	O	O	PC3	30	O	O	D0	46	O		A0	62	O	O	PA6
15	O	O	PC4	31	O	O	D1	47	O		A1	63	O	O	PA7
16	O	O	PC5	32	O	O	D2	48	O		A2	64	O	O	PB0



CS	RD	WR	A2	A1	A0	MODE
0	0	1	0	0	0	PORT A → DATA BUS
0	0	1	0	0	1	PORT B → DATA BUS
0	0	1	0	1	0	PORT C → DATA BUS
0	0	1	0	1	1	PORT D → DATA BUS
0	0	1	1	0	0	PORT X → DATA BUS
0	0	1	1	0	1	——
0	0	1	1	1	0	——
0	0	1	1	1	1	——
0	1	0	0	0	0	DATA BUS → PORT A
0	1	0	0	0	1	DATA BUS → PORT B
0	1	0	0	1	0	DATA BUS → PORT C
0	1	0	0	1	1	DATA BUS → PORT D
0	1	0	1	0	0	DATA BUS → PORT X
0	1	0	1	0	1	——
0	1	0	1	1	0	DATA BUS → CTL REG.1
0	1	0	1	1	1	DATA BUS → CTL REG.2
1	X	X	X	X	X	DATA BUS ; HI-Z

O ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE
HI-Z, HIGH IMPEDANCE

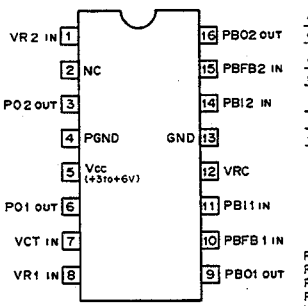
D0–D7 ; DATA BUS INPUTS/OUTPUTS
CS ; CHIP SELECT INPUT
RD ; READ STROBE INPUT
WR ; WRITE STROBE INPUT
A0–A2 ; ADDRESS INPUT
RST ; RESET INPUT
CLR ; CLEAR INPUT
PA0–PA7 ; PORT A INPUTS/OUTPUTS
PB0–PB7 ; PORT B INPUTS/OUTPUTS
PC0–PC7 ; PORT C INPUTS/OUTPUTS
PD0–PD7 ; PORT D INPUTS/OUTPUTS
PX0–PX3 ; PORT X INPUTS/OUTPUTS



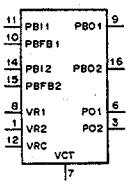
CXA1263AM (SONY) FLAT PACKAGE

AUDIO PRE-AMP/PHONE DRIVER

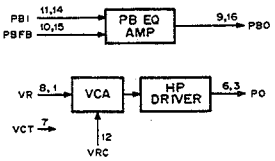
– TOP VIEW –



PGND; POWER AMP GROUND



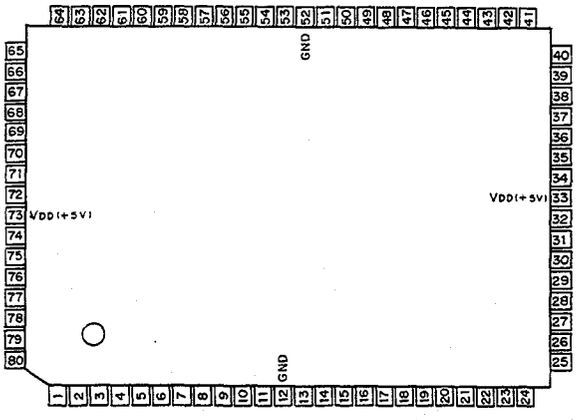
PBI1, 2 ; PREAMP INPUT
PBFB1, 2 ; PREAMP FEEDBACK INPUT
PBO1, 2 ; PREAMP OUTPUT
PO1, 2 ; POWER AMP OUTPUT
VR1, 2 ; POWER AMP INPUT
VCT ; REFERENCE BIAS DC FOR CAPACITOR
VRC ; LEVEL CONTROL DC INPUT



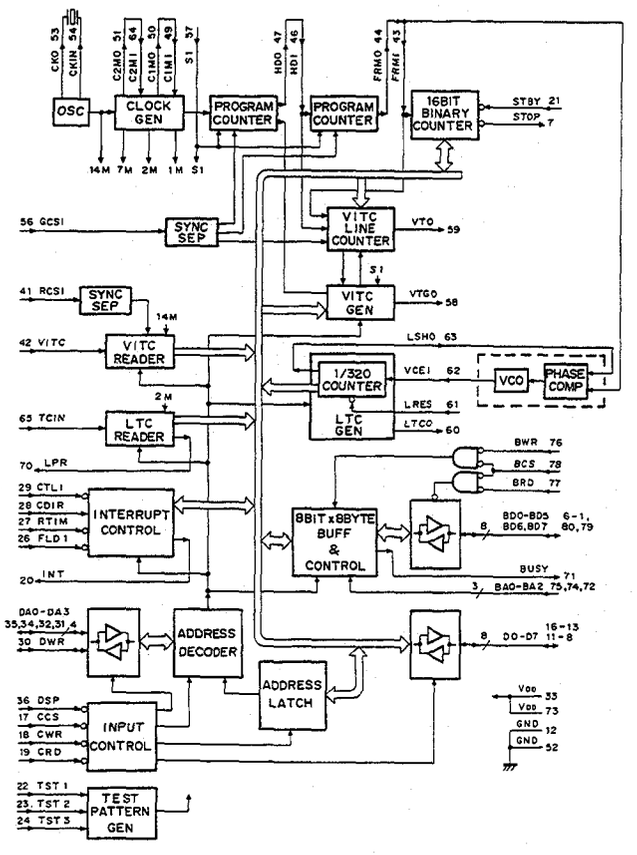
CXD1132Q (SONY) FLAT PACKAGE

C-MOS TIME CODE GENERATOR/READER

– TOP VIEW –



PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL
1	I/O	DB5	17	I	CCS	33	–	V_{DD}	49	I	C1MI	65	I	TCIN
2	I/O	DB4	18	I	CWR	34	I/O	DA1	50	O	C1MO	66	O	DCLK
3	I/O	DB3	19	I	CRD	35	I/O	DA0	51	O	C2MO	67	O	DATA
4	I/O	DB2	20	O	INT	36	I	DSP	52	–	GND	68	O	RFLD
5	I/O	DB1	21	I	STBY	37	O	DTSE	53	O	CKO	69	O	RDSY
6	I/O	DB0	22	I	TST1	38	O	VRCK	54	I	CKIN	70	O	LRP
7	O	STOP	23	I	TST2	39	I	SLLM	55	I	SLCK	71	O	BUSY
8	I/O	D7	24	I	TST3	40	O	RVDO	56	I	GCSI	72	I	BA2
9	I/O	D6	25	I	PON	41	I	RCSI	57	I	S1	73	–	V_{DD}
10	I/O	D5	26	I	FLD1	42	I	VITC	58	O	VTGO	74	I	BA1
11	I/O	D4	27	I	RTIM	43	I	FRMI	59	O	VTO	75	I	BA0
12	–	GND	28	I	CDIR	44	O	FRMO	60	O	LTCO	76	I	BWR
13	I/O	D3	29	I	CTLI	45	O	GLSY	61	I	LRES	77	I	BRD
14	I/O	D2	30	I/O	DWR	46	I	HDI	62	I	VCEI	78	I	BCS
15	I/O	D1	31	I/O	DA3	47	O	HDO	63	O	LSHO	79	I/O	BD7
16	I/O	D0	32	I/O	DA2	48	O	VDO	64	I	C2MI	80	I/O	BD6



SIGNAL DESCRIPTION

BA0–BA2
B ADDRESS INPUTS
BCS B CHIP ENABLE INPUT ("L":ENABLE)
BD0–BD7
B DATA I/O
BRD B READ INPUT ("L":READ)
BUSY B BUSY OUTPUT
BWR B WRITE INPUT ("L":WRITE)
C1MI SYSTEM CLOCK INPUT
C1MO CLOCK 1 OUTPUT (CKIN X 1/16)
C2MI LTC READ CLOCK INPUT
C2MO CLOCK 2 OUTPUT (CKIN X 1/8)
CCS C CHIP ENABLE INPUT ("L":ENABLE)(when DSP is low)
ADDRESS LATCH ENABLE INPUT ("L":ENABLE)(when DSP is high)
CDIR CTL DIRECTION INPUT
CKIN SYSTEM CLOCK INPUT

VIDEO SIGNAL FORMAT	CKIN
SMPTE 29.97HZ 525LINE	14.318MHZ
EBU 25HZ 625LINE	14.500MHZ

CKO CLOCK OUTPUT
CRD C READ INPUT ("L":READ)
CTLI CTL SIGNAL INPUT
CWR C WRITE INPUT ("L":WRITE)
D0–D7 DATA I/O (when DSP is low)/
ADDRESS INPUTS
DA0–DA3
E ADDRESS INPUTS (when DSP is high)
D ADDRESS OUTPUT (when DSP is low)
DATA DEMODULATED SERIAL DATA OUTPUT
DCLK DEMODULATED CLOCK OUTPUT
DSP DISPLAY BUS SELECT INPUT
DSP controls CCS,DA0–DA3 and DVR.
DTSE VITC DATA SEARCH FLAG OUTPUT
DWR WRITE ENABLE OUTPUT ("L":ENABLE)(when DSP is low)
E ADDRESS 4 INPUT (when DSP is high)
EA4 ADDRESS BUS INPUT
FLD1 FIELD REFERENCE INPUT ("L":FILD 1)
FRMI FRAME SIGNAL INPUT
FRMO FRAME SIGNAL OUTPUT
GCSI COMPOSITE SYNC INPUT
GLSY LOST SYNC FLAG OUTPUT
HDI HORIZONTAL SYNC INPUT
HDO HORIZONTAL SYNC OUTPUT
INT ITERRUPT REQUEST OUTPUT
LPR LTC READ REQUEST OUTPUT
LRES LTC COUNTER RESET INPUT ("L":RESET)
LSHO SYNCHRONOUS SIGNAL OUTPUT
LTCO LTC SIGNAL OUTPUT
PON SYSTEM RESET INPUT ("L":PON)
RCSI COMPOSITE SYNC INPUT
RDSY READ SYNC WORD DATA OUTPUT
RESS RESET INPUT ("L":RTIM)
RFLD FIELD DATA OUTPUT
RTIM TIME ADDRESS RESET INPUT ("L":RESET)
RVDO VITC READ DATA OUTPUT
S1 SIGNAL FORMAT SELECT INPUT
"H":NTSC/PAL-M 29.94HZ 525LINE
"L":PAL/SECAM 25Hz 625LINE
SLCK SELECT CLOCK INPUT

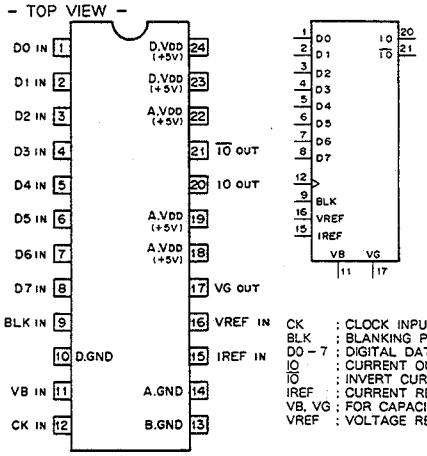
SLCK	"L"		"H"	
CKIN	14.318MHZ	14.5MHZ	7.159MHZ	7.25MHZ
SPEC	SMPTE	EBU	SMPTE	EBU

SLLM READ SIZE SELECT INPUT
STBY STANDBY READ FLAG INPUT
STOP STOP OUTPUT ("L":STOP)
TCIN LONGITUDINAL TIME AND CONTROL CODE INPUT
TST1–TST3
TEST INPUT
VCEI LTC CLOCK INPUT
VDO HORIZONTAL SYNC DRIVE OUTPUT
VITC VITC SIGNAL INPUT
VTGO VITC GATE SIGNAL OUTPUT
VTO VITC SIGNAL OUTPUT ("H":VITC)

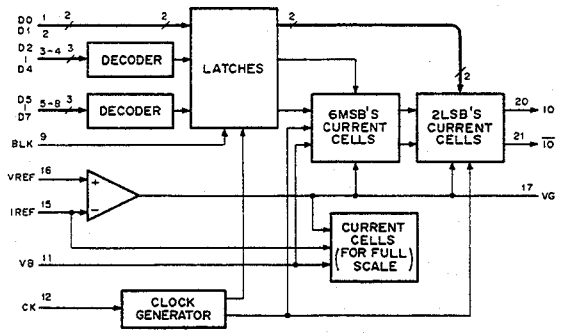
CXD1171M (SONY) FLAT PACKAGE

C-MOS 8-BIT D/A CONVERTER

– TOP VIEW –



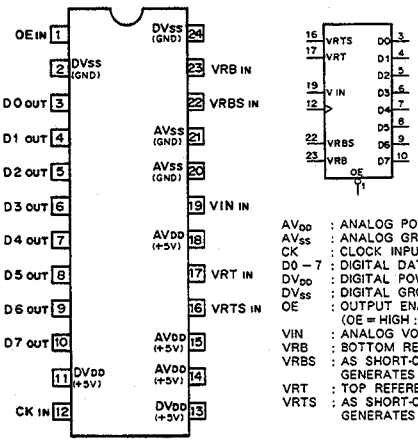
CK : CLOCK INPUT
BLK : BLANKING PULSE INPUT
DO – 7 : DIGITAL DATA INPUT
IO : CURRENT OUTPUT
$\overline{IO}$: INVERT CURRENT OUTPUT
IREF : CURRENT REFERENCE INPUT
VB, VG : FOR CAPACITOR
VREF : VOLTAGE REFERENCE INPUT



CXD1175AM (SONY) FLAT PACKAGE

C-MOS 8-BIT 20MSPS VIDEO A/D CONVERTER

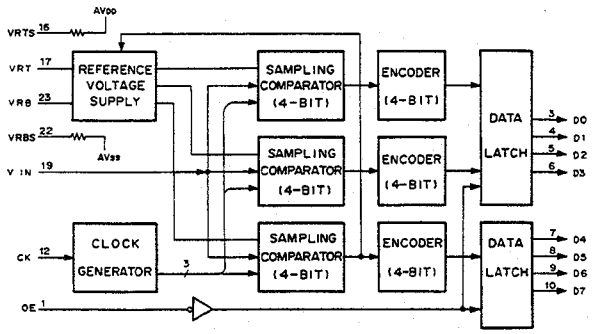
– TOP VIEW –



AV_{DD} : ANALOG POWER SUPPLY
AV_{SS} : ANALOG GROUND
CK : CLOCK INPUT
DO – 7 : DIGITAL DATA OUTPUTS (LSB to MSB)
DV_{DD} : DIGITAL POWER SUPPLY
DV_{SS} : DIGITAL GROUND
OE : OUTPUT ENABLE
(OE = HIGH : HIGH IMPEDANCE)
VIN : ANALOG VOLTAGE INPUT
VRB : BOTTOM REFERENCE VOLTAGE INPUT
VRBS : AS SHORT-CIRCUIT AT VRB.
GENERATES + 0.6V
VRT : TOP REFERENCE VOLTAGE INPUT
VRTS : AS SHORT-CIRCUIT AT VRT.
GENERATES + 2.6V

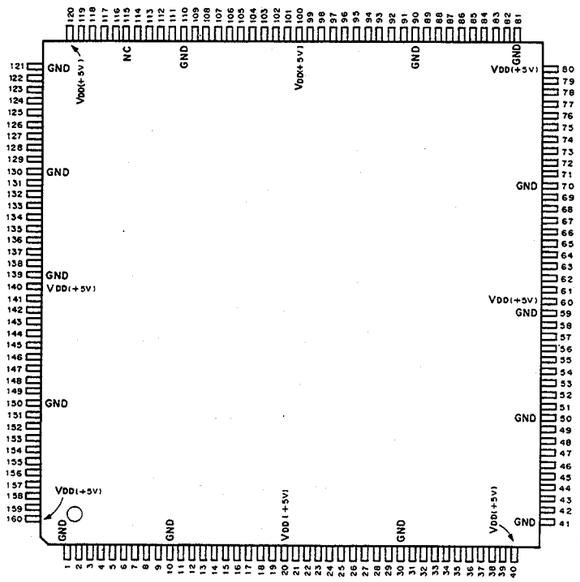
STEP	INPUT SIGNAL VOLTAGE	DATA OUTPUTS							
		D7	D6	D5	D4	D3	D2	D1	D0
0	0V (VRT)	1	1	1	1	1	1	1	1
1	0.01V	1	1	1	1	1	1	1	0
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
127	1.34V	1	0	0	0	0	0	0	0
128	1.35V	0	1	1	1	1	1	1	1
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
255	2.7V (VRB)	0	0	0	0	0	0	0	0

0 : LOW LEVEL
1 : HIGH LEVEL



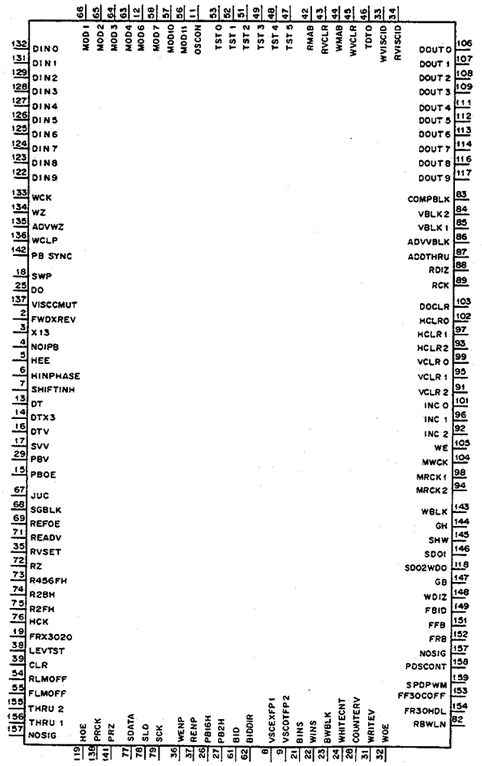
CXD8152Q (SONY) FLAT PACKAGE

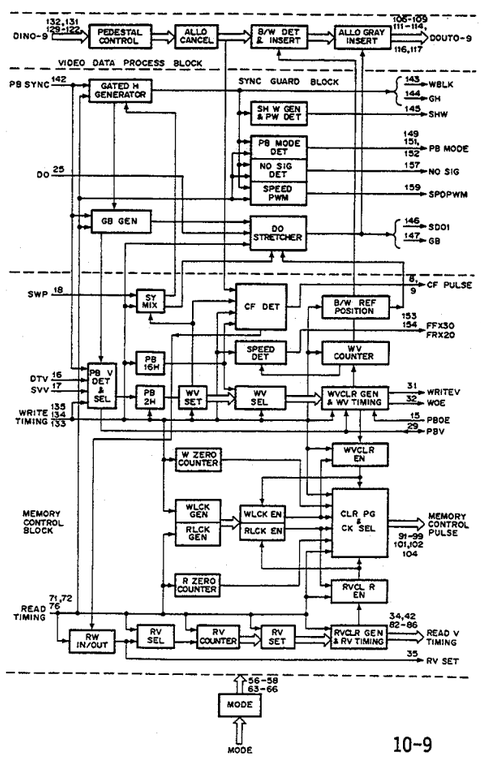
C-MOS VIDEO DATA PROCESS/SYNC GUARD/MEMORY CONTROLLER
– TOP VIEW –



(VDD = +5V)

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	–	GND	41	–	GND	81	–	GND	121	–	GND
2	I	FWDXREV	42	I/O	RMAB	82	O	RBWLN	122	I	DIN9
3	I	X13	43	I/O	RYCLR	83	O	COMPBLK	123	I	DIN8
4	I	NOIPB	44	I/O	WMAB	84	O	YBLK2	124	I	DIN7
5	I	HEE	45	I/O	WYCLR	85	O	YBLK1	125	I	DIN6
6	I	HINPHASE	46	I/O	TDT0	86	O	ADYYBLK	126	I	DIN5
7	I	SHIFTINH	47	I	TST5	87	O	ADDTHRU	127	I	DIN4
8	O	YSCEXEP1	48	I	TST4	88	O	RDIZ	128	I	DIN3
9	O	YSCDTFP2	49	I	TST3	89	O	RCK	129	I	DIN2
10	–	GND	50	–	GND	90	–	GND	130	–	GND
11	I	OSCON	51	I	TST2	91	O	YCLR2	131	I	DIN1
12	I	MOD6	52	I	TST1	92	O	INC2	132	I	DIN0
13	I	DT	53	I	TST0	93	O	HCLR2	133	I	WCK
14	I	DTX3	54	I	RLMOFF	94	O	MRCK2	134	I	WZ
15	I	PBOE	55	I	FLMOFF	95	O	YCLR1	135	I	ADYWZ
16	I	DTY	56	I	MOD11	96	O	INC1	136	I	WCLP
17	I	SYY	57	I	MOD10	97	O	HCLR1	137	I	YISCCMUT
18	I	SWP	58	I	MOD7	98	O	MRCK1	138	I	PRCK
19	I	FRX3020	59	–	GND	99	O	YCLR0	139	–	GND
20	–	VDD	60	–	VDD	100	–	VDD	140	–	VDD
21	O	BINS	61	I/O	BID	101	O	INCO	141	I	PRZ
22	O	WINS	62	I/O	BIDDIR	102	O	HCLR0	142	I	PBSYNC
23	O	BWBLK	63	I	MOD4	103	O	DOCLR	143	O	WBLK
24	O	WHITECNT	64	I	MOD3	104	O	MWCK	144	I/O	GH
25	I	DO	65	I	MOD2	105	O	WE	145	O	SHW
26	I/O	PB16H	66	I	MOD1	106	O	DOUT0	146	I/O	SDO1
27	I/O	PB2H	67	I	JUC	107	O	DOUT1	147	I/O	GB
28	O	COUNTERV	68	I	SGBLK	108	O	DOUT2	148	O	WDIZ
29	I/O	PBV	69	I	REFOE	109	O	DOUT3	149	I/O	FBID
30	–	GND	70	–	GND	110	–	GND	150	–	GND
31	O	WRITEV	71	I	READY	111	O	DOUT4	151	I/O	FFB
32	O	WOE	72	I	RZ	112	O	DOUT5	152	I/O	FRB
33	I/O	WYISCID	73	I	R456FH	113	O	DOUT6	153	O	FF30COFF
34	O	RYISCID	74	I	R2BH	114	O	DOUT7	154	O	FR30HDL
35	I/O	RYSET	75	I	R2FH	115	–	–	155	I	THRU2
36	I/O	WENP	76	I	HCK	116	O	DOUT8	156	I	THRU1
37	I/O	RENP	77	I	SDATA	117	O	DOUT9	157	I/O	NOSIG
38	I	LEYTST	78	I	SLD	118	O	SDO2WDO	158	O	PDSCONT
39	I	CLR	79	I	SCK	119	I	HOE	159	O	SPDPWM
40	–	VDD	80	–	VDD	120	–	VDD	160	–	VDD





INPUT

ADVWZ	: 66 CLOCK in ADVANCE of WRITE ZERO
CLR	: L : CLEAR
DINO – DIN9	: INPUT VIDEO DATA 2^0– 2^9
DO	: L : DROP OUT PULSE
DT	: L : DYNAMIC TRACKING MODE V REFERENCE PULSE
DTV	: DYNAMIC TRACKING MODE V REFERENCE PULSE
DTX3	: L : DYNAMIC TRACKING 3 TIMES NORMAL SPEED
FLM OFF	: H : FORWARD LIMITER OFF
FRX3020	: MORE THAN 20 or 30 TIMES NORMAL SPEED SELECT SWITCH
FWDXREV	: H : FORWARD, L : REVERSE
HCK	: READ CLOCK (13.5 or 14.3 MHz)
HEE	: H : VIDEO EE
HINPHASE	: L : COLOR FRAMING DISCORD H : COLOR FRAMING IN PHASE
HOE	: H : DATA OUTPUT ENABLE
JUC	: H : JAPAN, L : USA/CANADA
LEVTST	: L : VIDEO LEVEL TEST
MOD1	: H : 525, L : 625
MOD2	: H : NTSC SECAM, L : PAL PAL-M
MOD3	: H : 14.3 MHz, L : 13.5 MHz
MOD4	: H : READ EXPANDER, L : WRITE EXPANDER
MOD6	: L : EXTERNAL PB OUTPUT ENABLE SELECT
MOD7	: H : Y, L : CHROMA
MOD10	: L : Y/C SYNCHRONOUS MODE
MOD11	: H : READ DO PROCESS, L : WRITE DO PROCESS
NOIPB	: L : NORMAL PB, DT, EE
OSCON	: H : REFERENCE OSCILLATER ON
PBOE	: PB ODD/EVEN FIELD ID (H : ODD)
PB SYNC	: SYNC, SEPARATED from PB VIDEO
PRCK	: READ CLOCK for WRITE EXPANDER
PRZ	: READ ZERO for WRITE EXPANDER
R2BH	: READ SYSTEM 2H BLANCKING
R2FH	: READ SYSTEM 2FH CLOCK
R456FH	: READ SYSTEM 4.5 and 5FH CLOCK
READV	: READ SYSTEM REFERENCE V
REFOE	: READ SYSTEM ODD/EVEN FIELD ID (H : ODD)
RLMOFF	: H : REVERSE LIMITER OFF
RZ	: READ REFERENCE EDGE OF MEMORY
SCK	: SERIAL CLOCK
SDATA	: SERIAL DATA
SGBLK	: L : COMPOSITE BLANKING PULSE
SHIFTINH	: H SHIFT INHIBIT
SLD	: SERIAL STORBE PULSE
SVV	: SERVO V REFERENCE
SWP	: SWITCHING PULSE
THRU1	: L : CYCLE THROUGH
THRU2	: L : WIDTH THROUGH
TST0 – 5	: TEST MODE
VISCCMUT	: PB VISC/CHROMA MUTE
WCK	: WRITE CLOCK
WCLP	: WRITE CLAMP PULSE
WZ	: WRITE ZERO
X13	: L : MORE THAN ± 13 TIMES NORMAL SPEED

OUTPUT

ADDTHRU	: YSQ→L : ADD THROUGH, CSQ→L : SECAM COMPOSITE V TOP
ADVVBLK	: Y ADD CONTROL
BINS	: H : BLACK REF INSERT PULSE
BWBLK	: L : BLACK & WHITE REF BLANKING PULSE
COMPBLK	: L : COMPOSITE BLANKING
COUNTERV	: COUNTER V/RVL
DOCLR	: WRITE H CLEAR PULSE
DOUT0 – 9	: OUTPUT VIDEO DATA 2^0– 2^9
FF30COFF	: L : MORE THAN + 30 TIMES NORMAL SPEED/L : CHROMA OFF
FR30HDL	: L : MORE THAN – 30 TIMES NORMAL SPEED/L : CHROMA OFF /L : COLOR FRAMING DISCORD H SHIFT
HCLRO	: WRITE MEMORY LINE ADDRESS COUNTER CLEAR PULSE
HCLR1, 2	: READ MEMORY LINE ADDRESS COUNTER CLEAR PULSE
INC0	: WRITE MEMORY LINE ADDRESS COUNTER CLOCK
INC1, 2	: READ MEMORY LINE ADDRESS COUNTER CLOCK
MRCK1, 2	: READ MEMORY CLOCK
MWCK	: WRITE MEMORY CLOCK
PDSCONT	: A/D CLAMP CONTROL
RBWLN	: BLACK/WHITE LEVEL DIFFERENCE INSERT LINE
RCK	: READ MEMORY AFTER CLOCK
RDIZ	: READ SYSTEM LINE ALTERNATE
RVISCID	: L : VISC φ DET LINE (525 : 11 LINE, 625 : 8 LINE) /L : COLOR FRAMING ID BLANKING PULSE (525 : 15 LINE, 625 : 12 UNE)
SDO2WDO	: STRETCH ED DO PULSE
SHW	: WINDOW TO DETECT HORIZONTAL SYNC
SPDPWM	: PB SPEED PWM
VBLK1	: V BLANKING PULSE
VBLK2	: ENR DOC INHIBIT PULSE
VCLR0	: WRITE MEMORY LINE ADDRESS COUNTER CLEAR PULSE
VCLR1, 2	: READ MEMORY LINE ADDRESS COUNTER CLEAR PULSE
VSCDTFP2	: H : PB VISC PHASE COMPARISON ENABLE PULSE 1H : CFLD (–)
VSCEXFP1	: L : PB VISC EXIST/H : CFID (+)
WBLK	: VIDEO BLANKING USED IN DETECTING HORIZONTAL SYNC.
WE	: L : WRITE ENABLE
WDIZ	: WRITE SYSTEM LINE ALTERNATE
WHITECNT	: WHITE CONTROL
WINS	: H : WHITE REF INSERT PULSE
WOE	: YSQ OUTPUT TO PB OE OF CSQ
WRITEV	: YSQ OUTPUT TO PB V OF CSQ

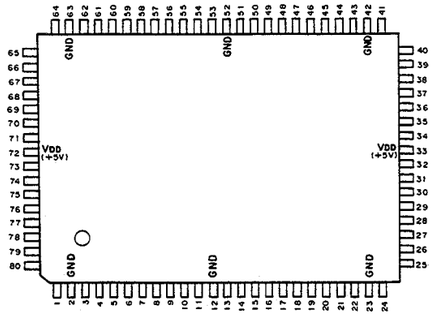
INPUT/OUTPUT

BID	: L : BIDIREX
BIDDIR	: H : FORWARD, L : REVERSE
FBID	: L : FAST BIDIREX
FFB	: L : FAST FORWARD BIDIREX
FRB	: L : FAST REVERSE BIDIREX
GB	: L : GUARD BAND
GH	: GATED H SYNC
NOSIG	: L : NO SIGNAL
P816H	: ADVANCE WRITE ZERO RESET, 16 TIMES H RATE
P82H	: PB V RESET, 2 TIMES H RATE
PBV	: Y NORMAL PB V REFERENCE PULSE
RENP	: L : READ EXTRACT INHIBIT PULSE
RMAB	: READ EXJ RCT PULSE
RVCLR	: READ V CLEAR LINE
RVSET	: YSQ OUTPUT TO READ V OF CSQ
SDO1	: STRETCH ED DO PULSE
TDT0	: TIME CODE DATA
WENP	: L : WRITE EXTRACT INHIBIT PULSE
WMAB	: WRITE EXTRACT PULSE
WVCLR	: WRITE V CLEAR LINE
WVISCID	: L : PB VISC BLANKING PULSE (525 : 11 LINE, 625 : 8 LINE) /L : CFID BLANCKING PULSE (525 : 15 LINE, 625 : 12 LINE)

CXD8160Q (SONY) FLAT PACKAGE

C-MOS DIGITAL CHROMA EXPANDER

– TOP VIEW –



PIN ASSIGNMENT (V_{DD} = +5V)

PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	I	TLOAD	21	I	L ; DT	41	O	RY1	61	O	BY6
2	–	GND	22	I	TRST	42	–	GND	62	O	BY7
3	I	CK	23	–	GND	43	O	RY2	63	–	GND
4	I	LBID	24	I	CIN0	44	O	RY3	64	O	BY8
5	I	LCBLK	25	I	CIN1	45	O	RY4	65	O	BY9
6	I	LVBLK	26	I	CIN2	46	O	RY5	66	I	LENBY
7	I	LBY	27	I	CIN3	47	O	RY6	67	I	HSYNC
8	I	XTRE	28	I	CIN4	48	O	RY7	68	I	DTSTB
9	I	XTWE	29	I	CIN5	49	O	RY8	69	I	SLD
10	O	TRO0	30	I	CIN6	50	O	RY9	70	O	S OUT
11	O	TRO1	31	I	CIN7	51	I	LENRY	71	I	S DATA
12	–	GND	32	I	CIN8	52	–	GND	72	I	SCK
13	I	LFRCOMB	33	–	VDD	53	I	TRI0	73	–	VDD
14	I	LCOMB OFF	34	I	CIN9	54	I	XMM	74	I	XTST0
15	I	L625	35	I	TRI1	55	O	BY0	75	I	XTST1
16	I	LC MUTE1	36	I	TRI2	56	O	BY1	76	I	XTST2
17	I	LC MUTE2	37	I	TRI3	57	O	BY2	77	I	XTST3
18	I	LC MPLX	38	I	TRI4	58	O	BY3	78	–	–
19	I	L3S4	39	I	TRI5	59	O	BY4	79	O	ENS0
20	I	LAP OFF	40	O	RY0	60	O	BY5	80	O	ENS1

INPUT

CIN0 – CIN9 : COMPLEXED CHROMA DATA (10 bit)
CK : SYSTEM CLOCK
DTSTB : TEST MODE B-Y/R-Y STROBE
HSYNC : HORIZONTAL SYNC
L3S4 : L ; COMPRESS BY 3/4
L625 : LIMITER LEVEL (H ; 12.5%, L ; 6.25%)
LAP OFF : I ; SIN (X) /X CORRECTION OFF
LBID : L ; BIDIREX
LBY : COMPLEXED CHROMA DATA POSITION (H ; R-Y, L ; B-Y)
LCBLK : COMPOSITE BLANKING
LCOMB OFF : L ; COMB FILTER OFF MODE
LCMPLX : L ; COMPLEX
LC MUTE1, 2 : L ; CHROMA DATA MUTE
LDT : L ; DYNAMIC TRACKING MODE
LENBY : B-Y ENABLE
LENRY : R-Y ENABLE
LFRCOMB : L ; COMB FILTER ON MODE
LVBLK : V BLANKING
SCK : SERIAL CLOCK
S DATA : SERIAL DATA
SLD : SERIAL LATCH PULSE
TLOAD : TEST MODE
TRI0 – TRI5 : TEST MODE
TRST, XMM : TEST MODE
XTRE : TEST MODE
XTST0 – 3 : TEST MODE
XTWE : TEST MODE

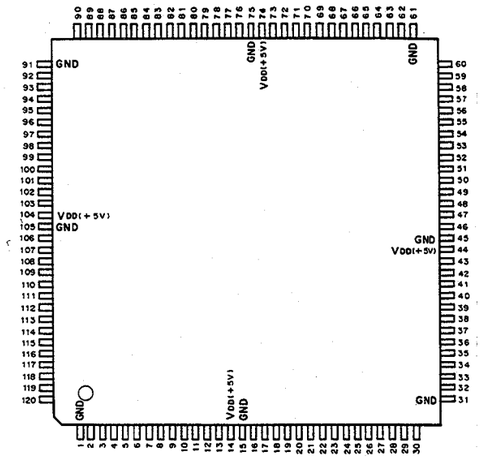
OUTPUT

BY0 – BY9 : B-Y CHROMA DATA or COMPLEXED CHROMA DATA
ENS0, 1 : COMPRESS CHROMA EDGE DATA
RY0 – RY9 : R-Y CHROMA DATA or COMPLEXED DATA for D1 INTERFACE
SOUT : SERIAL DATA
TRO0, 1 : TEST MODE

CXD8161AQ (SONY) FLAT PACKAGE

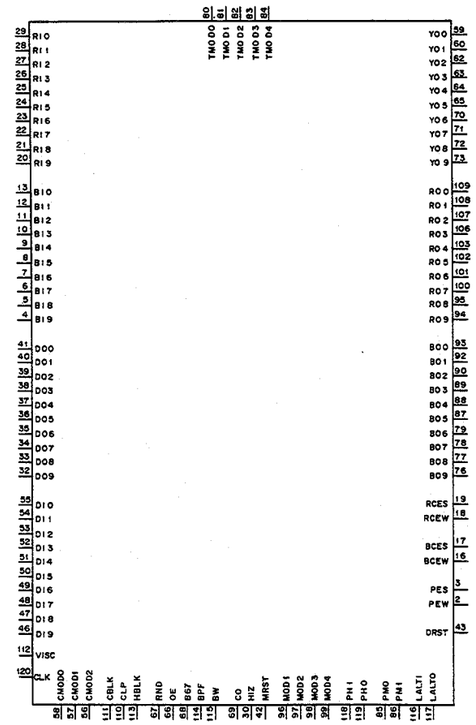
C-MOS DIGITAL Y/C SEPARATOR & CHROMA DECODER

– TOP VIEW –



(V_{DD} = +5V)

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	–	GND	31	–	GND	61	–	GND	91	–	GND
2	O	PEW	32	I	DO9	62	O	YO2	92	O	BO1
3	O	PES	33	I	DO8	63	O	YO3	93	O	BO0
4	I	BI9	34	I	DO7	64	O	YO4	94	O	RO9
5	I	BI8	35	I	DO6	65	O	YO5	95	O	RO8
6	I	BI7	36	I	DO5	66	I	YO6	96	I	HOD1
7	I	BI6	37	I	DO4	67	I	YO7	97	I	HOD2
8	I	BI5	38	I	DO3	68	I	YO8	98	I	HOD3
9	I	BI4	39	I	DO2	69	I	YO9	99	I	HOD4
10	I	BI3	40	I	DO1	70	O	YO6	100	O	RO7
11	I	BI2	41	I	DO0	71	O	YO7	101	O	RO6
12	I	BI1	42	I	MRST	72	O	YO8	102	O	RO5
13	I	BI0	43	O	DRST	73	O	YO9	103	O	RO4
14	–	VDD	44	–	VDD	74	–	VDD	104	–	VDD
15	–	GND	45	–	GND	75	–	GND	105	–	GND
16	O	BCEW	46	I	DI9	76	O	BO9	106	O	RO3
17	O	BCES	47	I	DI8	77	O	BO8	107	O	RO2
18	O	RCEW	48	I	DI7	78	O	BO7	108	O	RO1
19	O	RCES	49	I	DI6	79	O	BO6	109	O	RO0
20	I	RI9	50	I	DI5	80	I	TMOD0	110	I	CLP
21	I	RI8	51	I	DI4	81	I	TMOD1	111	I	CBLK
22	I	RI7	52	I	DI3	82	I	TMOD2	112	I	YISC
23	I	RI6	53	I	DI2	83	I	TMOD3	113	I	HBLK
24	I	RI5	54	I	DI1	84	I	TMOD4	114	I	BPF
25	I	RI4	55	I	DI0	85	I	PM0	115	I	BW
26	I	RI3	56	I	CMOD2	86	I	PM1	116	I	LALT1
27	I	RI2	57	I	CMOD1	87	O	BO5	117	O	LALT0
28	I	RI1	58	I	CMOD0	88	O	BO4	118	I	PH1
29	I	RI0	59	O	YO0	89	O	BO3	119	I	PH0
30	I	HIZ	60	O	YO1	90	O	BO2	120	I	CLK



INPUT

B67 : CORRELATION DETECT SENSITIVITY SELECT (H ; 6 BITS, L ; 7 BITS)
BI0 – BI9 : B-Y DATA (COMPONENT MODE)
BPF : L ; BAND PASS FILTER SELECT
BW : COMPOSITE SIGNAL THROUGH OUT CONTROL
CBLK : CHROMA BLANKING PULSE
CLK : CLOCK
CLP : CLAMP PULSE
*1) CMOD0 – D2 : Y/C CORRECATION MODE SELECT
CO : CHROMA DECODE CONTROL
DI0 – DI9 : 2H DELAY DATA (COMPOSITE MODE) for NTSC
4H DELAY DATA (COMPOSITE MODE) for PAL/PAL-M
DO0 – DO9 : 1H DELAY DATA (COMPOSITE MODE) for NTSC
2H DELAY DATA (COMPOSITE MODE) for PAL/PAL-M
HBLK : H BLANKING PULSE
HIZ : PULSE CONTROL
LALTI : LINE ALTERNATE
*2) MODE1 – MODE4 : MODE SELECT
MRST : RESET
OE : OUTPUT ENABLE
PH0, PH1 : REFERENCE PHASE for CHROMA DECODE and VLSC GENERATION
PM0, PM1 : PHASE SHIFT CONTROL
RI0 – RI9 : COMPOSITE DATA (COMPOSITE MODE)
R-Y DATA (COMPONENT MODE)
CHROMA DATA (CHROMA MODE)
RND : OUTPUT ROUND OFF SELECT
TMOD0 – D4 : TEST MODE/BPF STAGE SELECT
VISC : VIRTICAL INTERVAL SUB-CARRIER CONTROL

OUTPUT

BCES : B-Y CLAMP ERROR SENSE
BCEW : B-Y CLAMP ERROR WIDTH
BO0 – BO9 : B-Y DATA (B O9 ; MSB)
DRST : EXTERNAL DELAY LINE RESET
LALTO : LINE ALTERNATE
PES : PHASE ERROR SENSE
PEW : PHASE ERROR WIDTH
RCES : R-Y CLAMP ERROR SENSE
RCEW : R-Y CLAMP ERROR WIDTH
RO0 – RO9 : R-Y DATA (RO9 ; MSB)
YO0 – YO9 : Y DATA (YO9 ; MSB)

*1)

CMOD2	CMOD1	CMOD0	MODE
0	0	0	0-1 FIX
0	0	1	1-2 FIX
0	1	0	0-1-2 FIX
0	1	1	BPF FIX
1	0	0	0-1/1-2/0-1 ADAPTIVE
1	0	1	0-1/1-2/1-2 ADAPTIVE
1	1	0	0-1/1-2/0-1-2 ADAPTIVE
1	1	1	0-1/1-2/0-1-2/BPF ADAPTIVE

0 ; LOW LEVEL
1 ; HIGH LEVEL

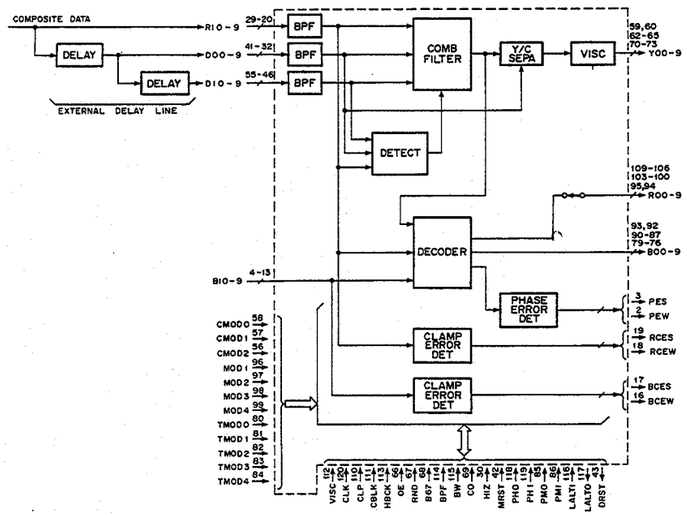
0-1 ; UPPER 2 LINE COMB FILTER
1-2 ; LOWER 2 LINE COMB FILTER
0-1-2 ; UPPER/LOWER 3 LINE COMB FILTER

*2)

MODE2	MODE1	MODE
0	0	PAL
0	1	PAL-M
1	0	SECAM
1	1	NTSC

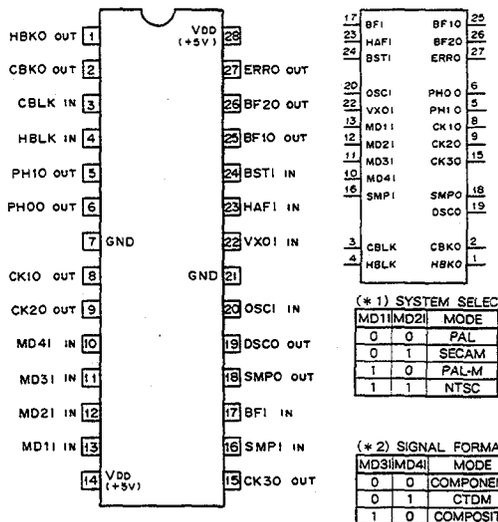
MODE4	MODE3	MODE
0	0	COMPONENT
0	1	COMPOSITE
1	0	CTDM
1	1	CHROMA

0 ; LOW LEVEL
1 ; HIGH LEVEL



CXD8243M (SONY) FLAT PACKAGE

C-MOS DIGITAL YC SEPARATOR/DECODER/CTDM CLOCK GENERATOR
– TOP VIEW –



(*1) SYSTEM SELECT

MD1I	MD2I	MODE
0	0	PAL
0	1	SECAM
1	0	PAL-M
1	1	NTSC

(*2) SIGNAL FORMAT SELECT

MD3I	MD4I	MODE
0	0	COMPONENT
0	1	CTDM
1	0	COMPOSITE
1	1	S-VIDEO

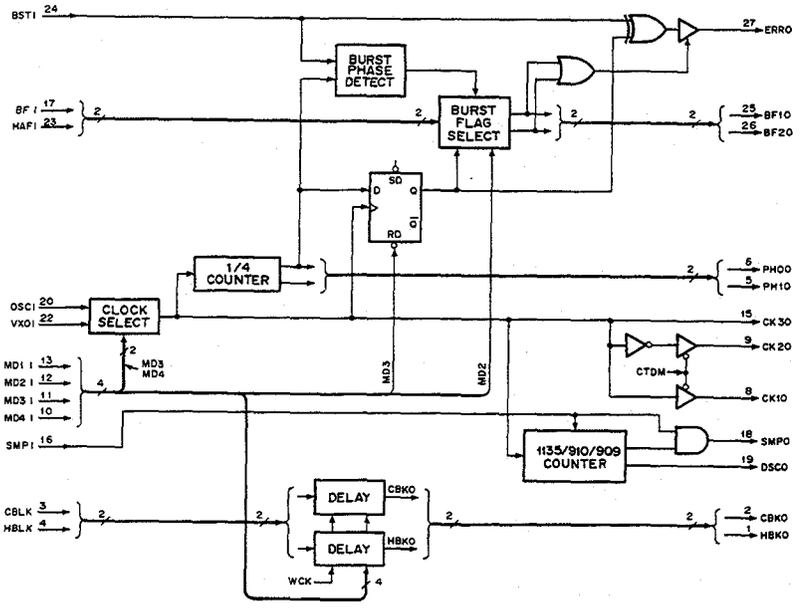
0 ; LOW LEVEL
1 ; HIGH LEVEL

INPUT

BFI : BURST FLAG
BSTI : BURST FOR PHASE COMPARISON
CBLK : CHROMA BLANKING PULSE
HAFI : TRIGGER PULSE FOR BURST SAMPLING
HBLK : H BLANKING PULSE
MD1, 2I : SYSTEM SELECT (*1)
MD3, 4I : SIGNAL FORMAT SELECT (*2)
OSCI : H LOCK LOOP VCO
SMPI : TRAPEZOID SAMPLING PULSE OF THE H LOCK LOOP
VXOI : BURST LOCK LOOP VCXO

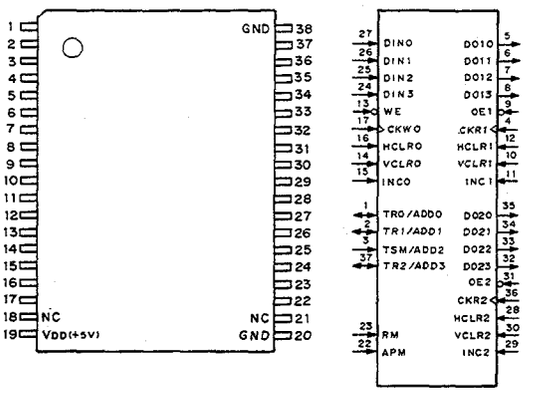
OUTPUT

BF1, 2O : BURST FLAG
CBKO : CHROMA BLANKING PULSE
CK1 – 3O : CLOCK, SELECTED BY MODE
DSCO : TRAPEZOID GENERATOR DISCHARGE PULSE
ERRO : BURST PHASE COMPARISON ERROR
HBKO : H BLANKING PULSE
PH0O : 2FSC
PH1O : FSC
SMPO : TRAPEZOID SAMPLING PULSE OF THE H LOCK LOOP



CXK1206M (SONY) FLAT PACKAGE

C-MOS VIDEO FIELD MEMORY (960-COLUMNx306-ROWx4-BIT)
– TOP VIEW –

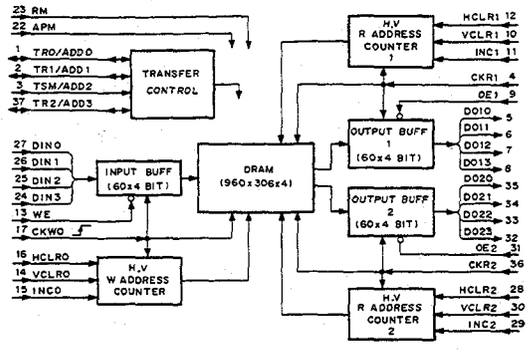


PIN	SIGNAL	DESCRIPTION
1	TR0/ADD0	W PORT 0 TRANSFER SYNC I/O, ADDRESS 0 INPUT
2	TR1/ADD1	R PORT 1 TRANSFER SYNC I/O, ADDRESS 1 INPUT
3	TSM/ADD2	TRANSFER SYNCHRONOUS MODE, ADDRESS 2 INPUT
4	CKR1	R PORT 1 SHIFT SIGNAL INPUT
5	DO10	R PORT 1 DATA 0 OUTPUT
6	DO11	R PORT 1 DATA 1 OUTPUT
7	DO12	R PORT 1 DATA 2 OUTPUT
8	DO13	R PORT 1 DATA 3 OUTPUT
9	OE1	R PORT 1 OUTPUT ENABLE INPUT
10	VCLR1	R PORT 1 VERTICAL CLEAR INPUT
11	INC1	R PORT 1 LINE INCREMENT INPUT
12	HCLR1	R PORT 1 HORIZONTAL CLEAR INPUT
13	WE	W PORT 0 WRITE ENABLE INPUT
14	VCLR0	W PORT 0 VERTICAL CLEAR INPUT
15	INC0	W PORT 0 LINE INCREMENT INPUT
16	HCLR0	W PORT 0 HORIZONTAL CLEAR INPUT
17	CKW0	W PORT 0 SHIFT SIGNAL INPUT
18	NC	(no connection)
19	VDD	+5V INPUT
20	GND	GND
21	NC	(no connection)
22	APM	ADDRESS PRESET MODE INPUT
23	RMM	RECURSIVE MODE ENABLE INPUT
24	DIN3	W PORT 0 DATA 3 INPUT
25	DIN2	W PORT 0 DATA 2 INPUT
26	DIN1	W PORT 0 DATA 1 INPUT
27	DIN0	W PORT 0 DATA 0 INPUT
28	HCLR2	R PORT 2 HORIZONTAL CLEAR INPUT
29	INC2	R PORT 2 LINE INCREMENT INPUT
30	VCLR2	R PORT 2 VERTICAL CLEAR INPUT
31	OE2	R PORT 2 OUTPUT ENABLE INPUT
32	DO23	R PORT 2 DATA 3 OUTPUT
33	DO22	R PORT 2 DATA 2 OUTPUT
34	DO21	R PORT 2 DATA 1 OUTPUT
35	DO20	R PORT 2 DATA 0 OUTPUT
36	CKR2	R PORT 2 SHIFT SIGNAL INPUT
37	TR2/ADD3	R PORT 2 TRANSFER SYNC I/O, ADDRESS 3 INPUT
38	GND	GND

MODE SELECTION

CONTROL INPUTS			TS, TR/ADD		MODE
RM	APM	TSM	TR 0–2	ADD 0–3	
0	0	0	OUTPUT	-	NON RECURSIVE MODE, TRANSFER SYNCHRONOUS MODE OUTPUT
0	0	1	INPUT	-	NON RECURSIVE MODE, TRANSFER SYNCHRONOUS MODE INPUT
0	1	-	-	INPUT	NON RECURSIVE MODE, ADDRESS PRESET MODE
1	0	0	OUTPUT	-	RECURSIVE MODE, TRANSFER SYNCHRONOUS MODE OUTPUT
1	0	1	INPUT	-	RECURSIVE MODE, TRANSFER SYNCHRONOUS MODE INPUT

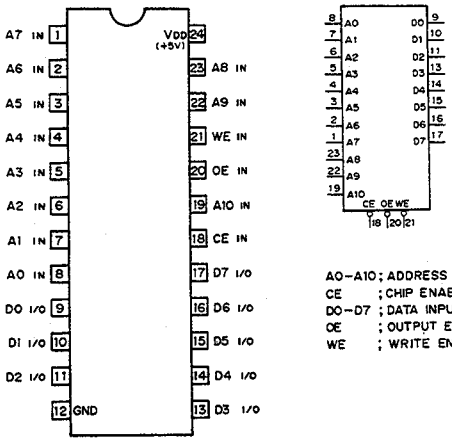
0:LOW LEVEL 1:HIGH LEVEL



CXK5816M-10L (SONY) (ACCESS TIME 100nS)

C-MOS 16K (2Kx8-BIT) STATIC RAM

– TOP VIEW –

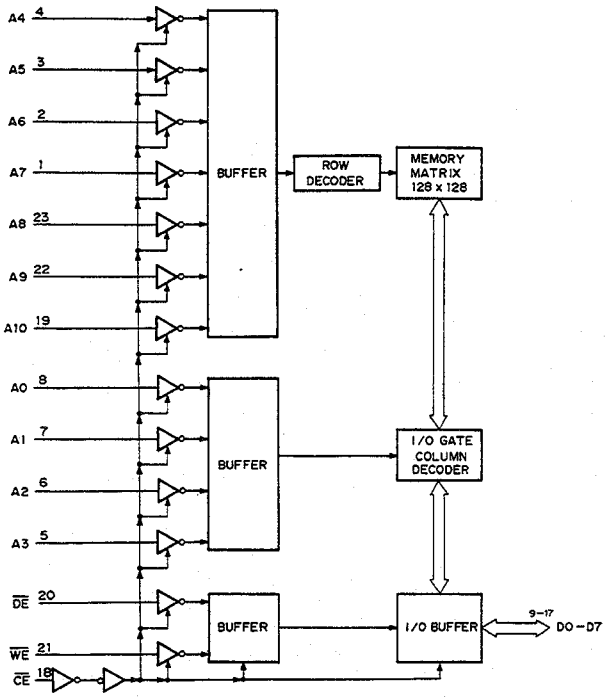


A0–A10 ; ADDRESS INPUTS
CE ; CHIP ENABLE INPUT
D0–D7 ; DATA INPUTS/OUTPUTS
OE ; OUTPUT ENABLE INPUT
WE ; WRITE ENABLE INPUT

MODE SELECTION

CONTROL INPUTS			MODE
CE	OE	WE	
1	X	X	NO CHANGE
0	1	1	DISABLE OUTPUT
0	0	1	READ
0	1	0	WRITE

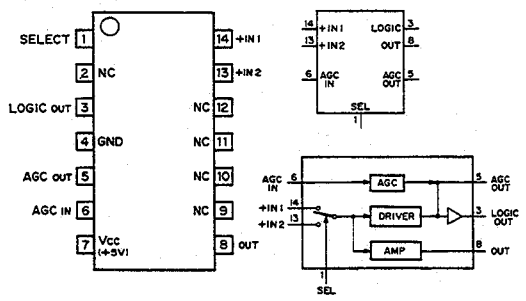
0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE



LA7205M (SANYO)

AGC AMP, INPUT SELECT, AGC DET, COMPARATOR

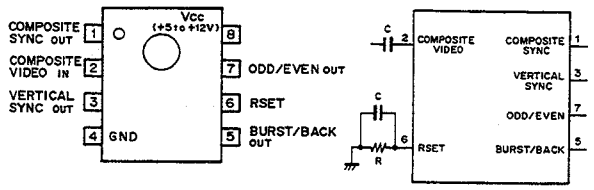
– SIDE VIEW –



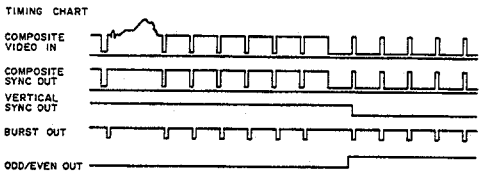
LM1881M (NS) FLAT PACKAGE

VIDEO SYNC SEPARATOR

– TOP VIEW –



TIMING CHART

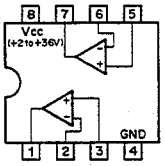


LM2903M (RAYTHEON) FLAT PACKAGE

UPC393G2 (NEC) FLAT PACKAGE

DUAL VOLTAGE COMPARATORS

– TOP VIEW –

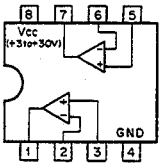


LM358PS (TI) FLAT PACKAGE

UPC358G2 (NEC) FLAT PACKAGE

DUAL OPERATIONAL AMPLIFIERS

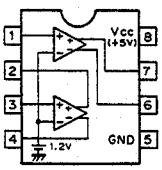
– TOP VIEW –



MB3761PF (FUJITSU) FLAT PACKAGE

VOLTAGE DETECTOR

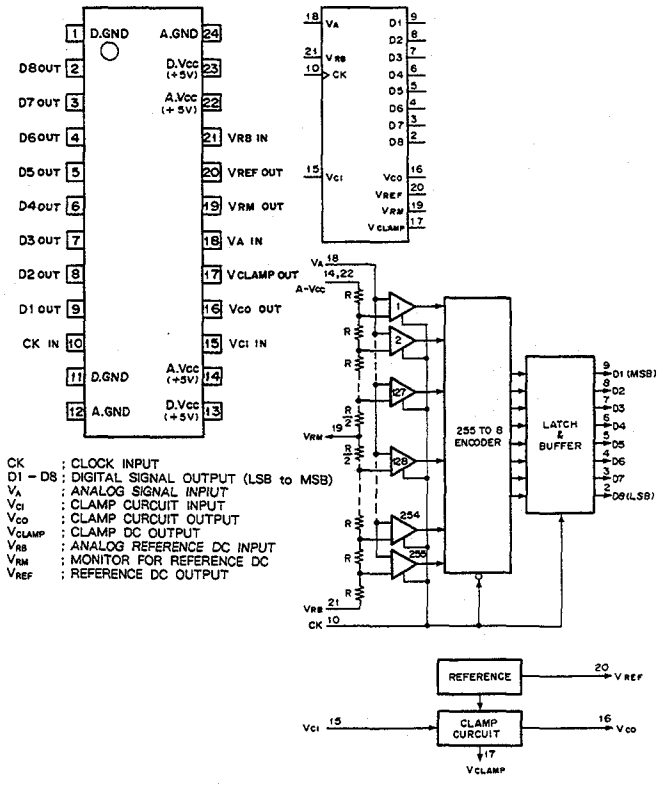
– TOP VIEW –



MB40568 (FUJITSU) FLAT PACKAGE

8BIT VIDEO A/D CONVERTER

– TOP VIEW –

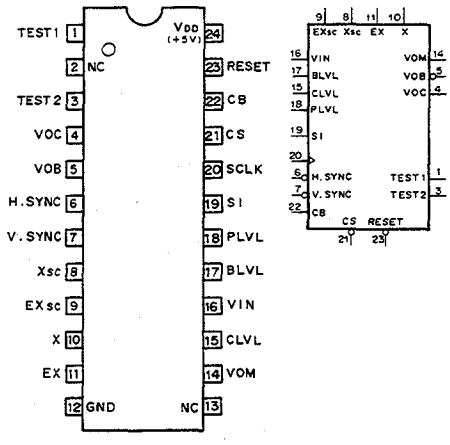


CK ; CLOCK INPUT
D1 – D8 ; DIGITAL SIGNAL OUTPUT (LSB to MSB)
V_A ; ANALOG SIGNAL INPUT
V_{CI} ; CLAMP CURCUIT INPUT
V_{CO} ; CLAMP CURCUIT OUTPUT
V_{CLAMP} ; CLAMP DC OUTPUT
V_{RB} ; ANALOG REFERENCE DC INPUT
V_{RM} ; MONITOR FOR REFERENCE DC
V_{REF} ; REFERENCE DC OUTPUT

MB88323A-PF-K2 (FUJITSU) FLAT PACKAGE

C-MOS TV DISPLAY CONTROLLER

– TOP VIEW –

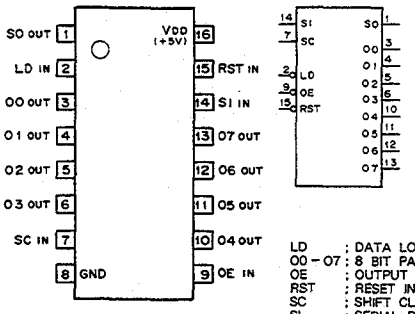


BLVL ; BORDER OR BACKGROUND ANALOG LEVEL INPUT
CB ; COLOR BURST DETECTION INPUT
CLVL ; CHARACTER ANALOG LEVEL INPUT
CS ; CHIP SELECT INPUT
EX ; DOT CLOCK INPUT
EXsc ; COLOR BURST CLOCK INPUT
H.SYNC ; H SYNC INPUT
PLVL ; VIDEO LEVEL CONTROL INPUT
SI ; SERIAL DATA INPUT
TEST1 ; CHIP TEST OUTPUT
TEST2 ; (NORMALLY SET TO OPEN)
VIN ; VIDEO SIGNAL INPUT
VOB ; BORDER OR BACKGROUND SIGNAL OUTPUT
VOC ; CHARACTER SIGNAL OUTPUT
VOM ; VIDEO/CHARACTER/BORDER OR BACKGROUND MIX OUTPUT
V.SYNC ; V SYNC INPUT
X ; DOT CLOCK OUTPUT
Xsc ; COLOR BURST CLOCK OUTPUT

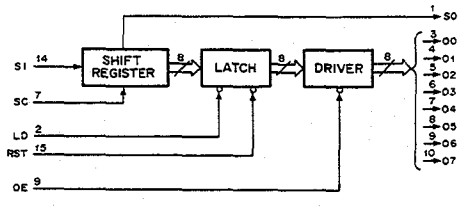
MB88306PF (FUJITSU) FLAT PACKAGE

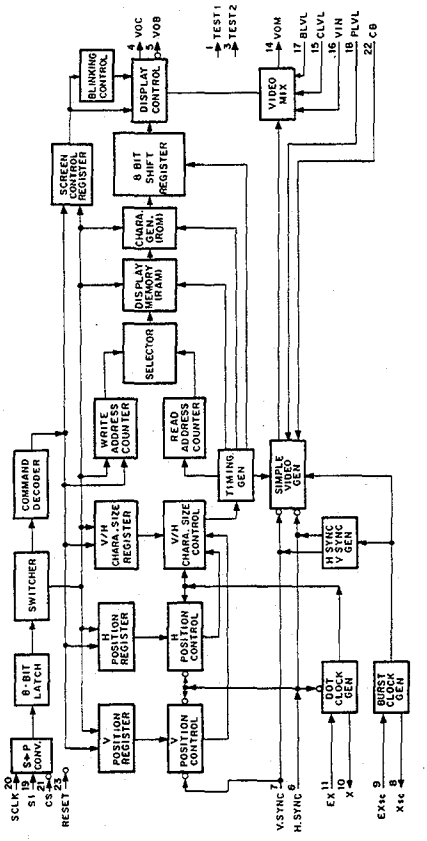
C-MOS OUTPUT EXPANDER

– TOP VIEW –



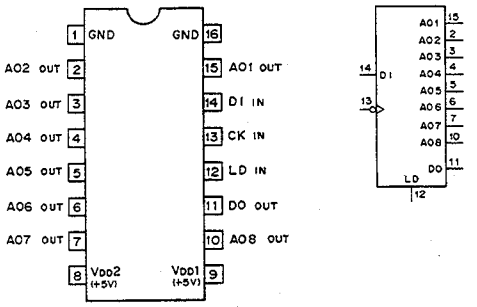
LD ; DATA LOAD INPUT
00 – 07 ; 8 BIT PARALLEL OUTPUT PROT
OE ; OUTPUT ENABLE INPUT
RST ; RESET INPUT
SC ; SHIFT CLOCK INPUT
SI ; SERIAL DATA INPUT
SO ; SERIAL DATA OUTPUT



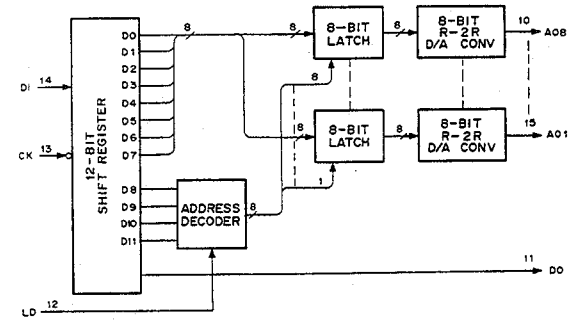


MB88342PF (FUJITSU) FLAT PACKAGE

C-MOS 8-BIT D/A CONVERTER
– TOP VIEW –

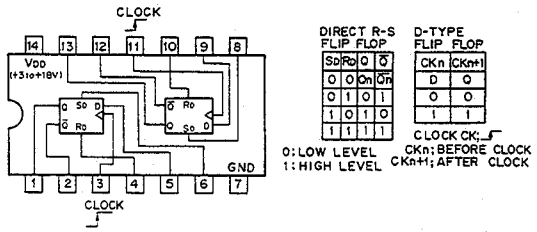


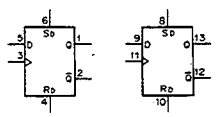
AO1 – AO8 ; 8-BIT D/A OUTPUTS
CK ; CLOCK INPUT
DI ; SERIAL DATA INPUT
DO ; DATA OUTPUT
LD ; DATA LOAD CONTROL INPUT (H : LOAD)



MC14013BF (MOTOROLA) FLAT PACKAGE

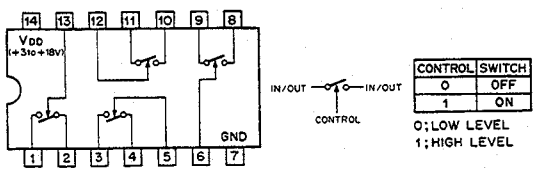
C-MOS D-TYPE FLIP-FLOP WITH DIRECT SET/RESET
– TOP VIEW –

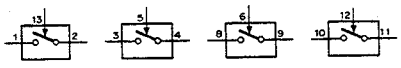




MC14066BF (MOTOROLA) FLAT PACKAGE

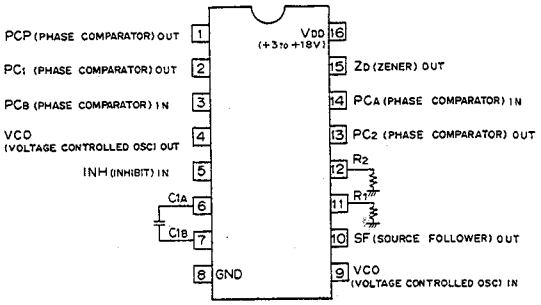
C-MOS BILATERAL ANALOG SWITCH
– TOP VIEW –

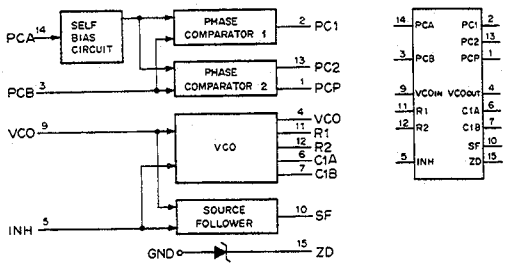




MC14046BF (MOTOROLA) FLAT PACKAGE

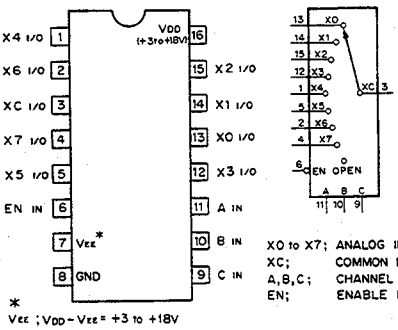
C-MOS PHASE LOCKED LOOP
– TOP VIEW –





MC14051BF (MOTOROLA) FLAT PACKAGE

C-MOS 8-CHANNEL ANALOG MULTIPLEXER/DEMULTIPLEXER
– TOP VIEW –



* VEE ; VDD – VEE = +3 to +18V

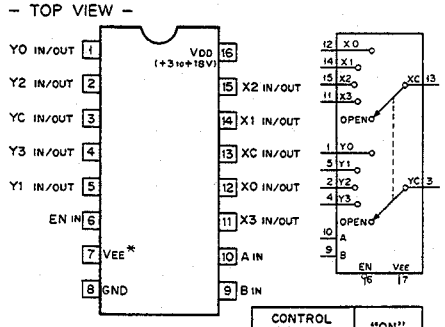
CONTROL INPUTS				SELECTED CHANNEL
EN	SELECT C	SELECT B	SELECT A	
0	0	0	0	X0
0	0	0	1	X1
0	0	1	0	X2
0	0	1	1	X3
0	1	0	0	X4
0	1	0	1	X5
0	1	1	0	X6
0	1	1	1	X7
1	X	X	X	OPEN

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE

XO to X7 ; ANALOG INPUTS/OUTPUTS
XC ; COMMON INPUT/OUTPUT
A, B, C ; CHANNEL SELECT INPUT
EN ; ENABLE INPUT

MC14052BF (MOTOROLA) FLAT PACKAGE

C-MOS DUAL 4-CHANNEL ANALOG MULTIPLEXER/DEMULTIPLEXER
– TOP VIEW –



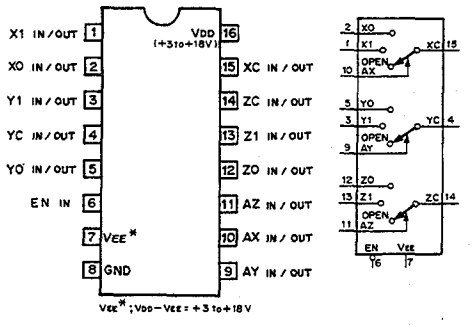
VEE* ; VDD – VEE = +3 to +18V

CONTROL INPUTS			"ON" CHANNEL
EN	B	A	
0	0	0	0
0	0	1	1
0	1	0	2
0	1	1	3
1	X	X	OPEN

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE.

MC14053BF (MOTOROLA) FLAT PACKAGE

C-MOS TRIPLE 2-CHANNEL ANALOG MULTIPLEXER/DEMULTIPLEXER
– TOP VIEW –



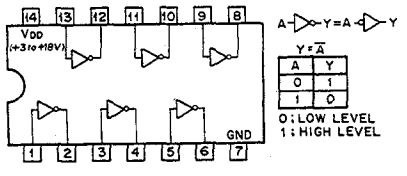
VEE* ; VDD – VEE = +3 to +18 V

CONT. INPUTS		ON
EN	A (X,Y,Z,)	CHANNEL
0	0	0
0	1	1
1	X	OPEN

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE.

MC14069UBF (MOTOROLA)

C-MOS INVERTER
– TOP VIEW –



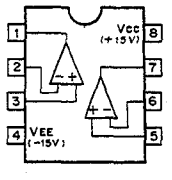
$Y = \overline{A}$

A	Y
0	1
1	0

0 ; LOW LEVEL
1 ; HIGH LEVEL

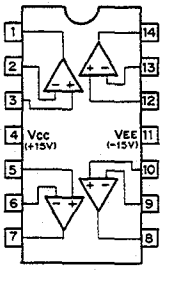
MC34182M (MOTOROLA) FLAT PACKAGE

OPERATIONAL AMPLIFIER
(J FET-INPUT)
– TOP VIEW –



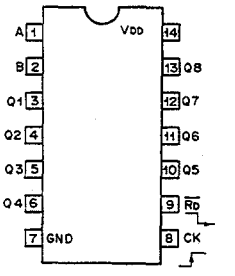
MC34184M (MOTOROLA) FLAT PACKAGE

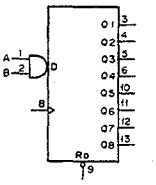
JFET INPUT OPERATIONAL AMPLIFIER
– TOP VIEW –



MC74HC164F (MOTOROLA) FLAT PACKAGE
SN74HC164NS (TI) FLAT PACKAGE

C-MOS 8-BIT SERIAL-IN/PARALLEL-OUT SHIFT REGISTER
– TOP VIEW –



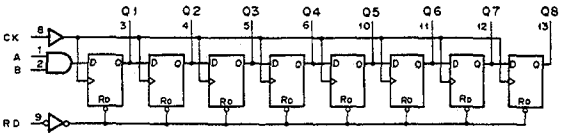


INPUTS				OUTPUTS			
RD	CK	A	B	Q1	Q2	----	Q8
0	X	X	X	0	0	0	0
1	0	X	X	Q1o	Q2o	----	Q8o
1	↑	1	1	1	Q1n	----	Q7n
1	↑	0	X	0	Q1n	----	Q7n
1	↑	X	0	0	Q1n	----	Q7n

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE

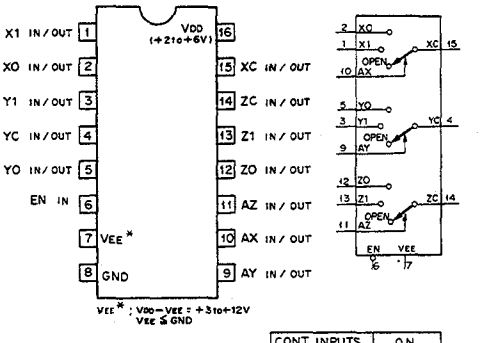
NOTE :

TYPE	VDD
TC74AC164F	+2 to +5.5V
OTHER TYPES	+2 to +6V



MC74HC4053F (MOTOROLA) FLAT PACKAGE

C-MOS TRIPLE 2-CHANNEL ANALOG MULTIPLEXER/DEMULTIPLEXER
– TOP VIEW –

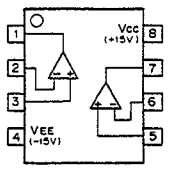


VEE* ; VDD – VEE = +3 to +12V
VEE ≦ GND

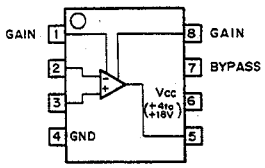
CONT. INPUTS		ON
EN	A (X,Y,Z,)	CHANNEL
0	0	0
0	1	1
1	X	OPEN

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE.

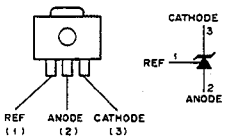
NJM2068MD (JRC) FLAT PACKAGE
LOW NOISE OPERATIONAL AMPLIFIER
– TOP VIEW –



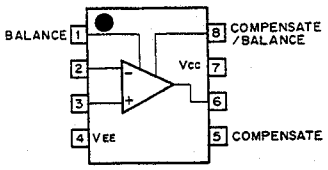
NJM386BM (JRC) FLAT PACKAGE
AUDIO POWER AMPLIFIER
– TOP VIEW –



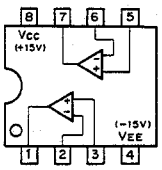
NJM431U (JRC)
ADJUSTABLE PRECISION SHUNT REGULATOR
– FRONT VIEW –



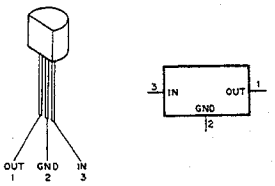
NJM5534M (JRC) FLAT PACKAGE
OPERATINAL AMPLIFIER
– TOP VIEW –



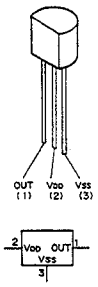
RC2041MD (RAYTHEON) FLAT PACKAGE
RC4560M (RAYTHEON) FLAT PACKAGE
RC5532M (RAYTHEON) FLAT PACKAGE
DUAL OPERATIONAL AMPLIFIER
– TOP VIEW –



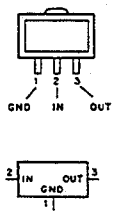
RC78L05A (RAYTHEON) + 5V
POSITIVE VOLTAGE REGULATOR (100mA)



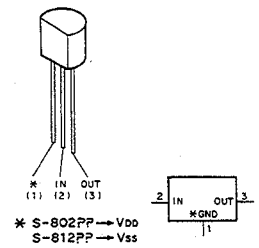
S-8053ALB (SEIKO I AND E) 2.80V – 3.10V
S-8054HN (SEIKO I AND E) 3.80V – 4.20V
VOLTAGE DETECTOR



S-81230AG-R8 (SEIKO) +5.0V FLAT PACKAGE
THREE TERMINAL POSITIVE VOLTAGE REGULATOR
– TOP VIEW –

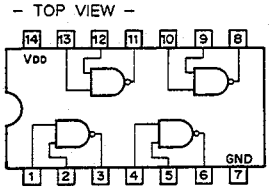


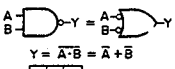
S-81230AG (SEIKO I AND E) + 3V
S-81250HG (SEIKO I AND E) + 5V
C-MOS VOLTAGE REGULATOR



* S-802PP → VDD
S-812PP → VSS

SN74HC00ANS (TI) FLAT PACKAGE
C-MOS QUAD 2-INPUT NAND GATE
– TOP VIEW –





$Y = \overline{A \cdot B} = \overline{A} + \overline{B}$

A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

0; LOW LEVEL
1; HIGH LEVEL

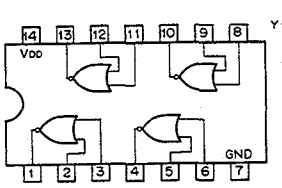
NOTE :

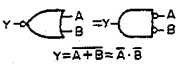
TYPE	VDD
TC74AC00P TC74AC00F	+2 to +5.5V
MC74HCT00N 74ACT00PC	+5V
OTHER TYPES	+2 to +6V

SN74HC02ANS (TI) FLAT PACKAGE

C-MOS QUAD 2-INPUT NOR GATE

– TOP VIEW –





$Y=\overline{A+B}=\overline{A}\cdot\overline{B}$

A	B	Y
0	0	1
0	1	0
1	0	0
1	1	0

0:LOW LEVEL
1:HIGH LEVEL

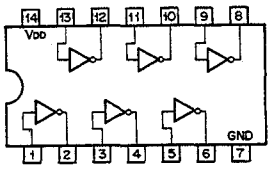
NOTE :

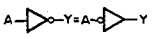
TYPE	VDD
TC74AC02F	+2 to +5.5V
OTHER TYPES	+2 to +6V

SN74HC04ANS (TI) FLAT PACKAGE
TC74HCU04AF (TOSHIBA) FLAT PACKAGE

C-MOS HEX INVERTER

– TOP VIEW –





$Y=\overline{A}$

A	Y
0	1
1	0

0:LOW LEVEL
1:HIGH LEVEL

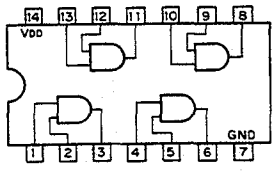
NOTE :

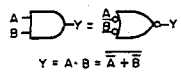
TYPE	VDD
74ACT04 TYPES 74HCT04 TYPES	+5V
TC74AC04F	+2 to +5.5V
TC74ACT04F	+4.5 to +5.5V
OTHER TYPES	+2 to +6V

SN74HC08ANS (TI) FLAT PACKAGE

C-MOS QUAD 2-INPUT AND GATE

– TOP VIEW –





$Y=A\cdot B=\overline{\overline{A}+\overline{B}}$

A	B	Y
0	0	0
0	1	0
1	0	0
1	1	1

0; LOW LEVEL
1; HIGH LEVEL

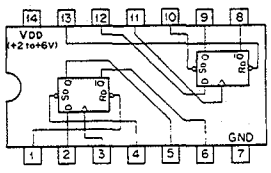
NOTE :

TYPE	VDD
TC74AC08F	+2 to +5.5V
OTHER TYPES	+2 to +6V

SN74HC74ANS (TI) FLAT PACKAGE

C-MOS D-TYPE FLIP FLOP WITH DIRECT SET/RESET

– TOP VIEW –



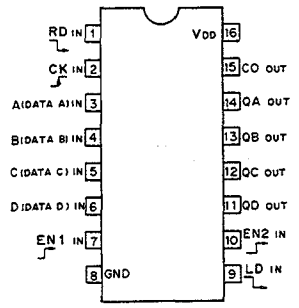
INPUTS				OUTPUTS	
$\overline{S_D}$	$\overline{R_D}$	CK	D	Qn+1	$\overline{Q_{n+1}}$
0	1	X	X	1	0
1	0	X	X	0	1
0	0	X	X	1	1
1	1	↑	1	1	0
1	1	↑	0	0	1
1	1	0	X	Qn	$\overline{Q_n}$

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE

SN74HC163ANS (TI) FLAT PACKAGE

C-MOS PRESETTABLE SYNCHRONOUS 4-BIT BINARY COUNTER

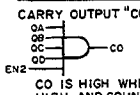
– TOP VIEW –



MODE SELECTION

CONTROL INPUTS				MODE
RD	LD	EN1	EN2	
0	X	X	X	RESET (SYNCHRONOUS)
1	0	X	X	PRESET (SYNCHRONOUS)
1	1	0	X	NO COUNT
1	1	X	0	NO COUNT
1	1	1	1	COUNT

CARRY OUTPUT "CO"



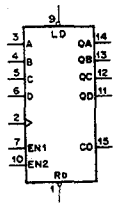
CO IS HIGH WHEN EN2 INPUT IS HIGH AND COUNT IS "15".

COUNT SEQUENCE

COUNT	OUTPUTS			
	QD	QC	QB	QA
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0	0	1
10	1	0	1	0
11	1	0	1	1
12	1	1	0	0
13	1	1	0	1
14	1	1	1	0
15	1	1	1	1

NOTE :

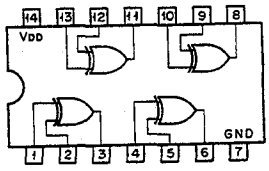
TYPE	VDD
74ACT	+5V
TC74AC163F	+2 to +5.5V
OTHER TYPES	+2 to +6V



SN74HC86ANS (TI) FLAT PACKAGE

C-MOS EXCLUSIVE OR GATE

– TOP VIEW –



$Y=\overline{A}\cdot B+A\cdot\overline{B}$

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	0

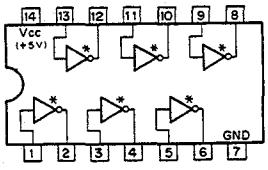
0;LOW LEVEL
1;HIGH LEVEL

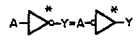
TYPE	VDD
TC74AC86F	+2 to +5.5V
OTHER TYPES	+2 to +6V

SN74LS06NS (TI) FLAT PACKAGE

TTL INVERTER BUFFER/DRIVER WITH OPEN-COLLECTOR

– TOP VIEW –





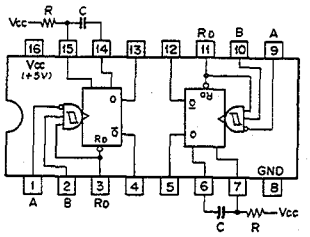
$Y=\overline{A}$

A	Y
0	1
1	0

0;LOW LEVEL
1;HIGH LEVEL
*;OPEN COLLECTOR

SN74LS221NS (TI) FLAT PACKAGE

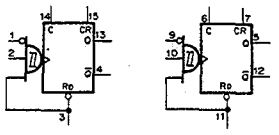
TTL MONOSTABLE MULTIVIBRATOR WITH SCHMITT TRIGGER INPUT
– TOP VIEW –



INPUTS			OUTPUTS	
RD	A	B	Q	$\overline{Q}$
0	X	X	0	1
X	1	X	0	1
X	X	0	0	1
1	0	↑	⎍	⎍
1	↓	1	⎍	⎍
↑	0	1	⎍	⎍

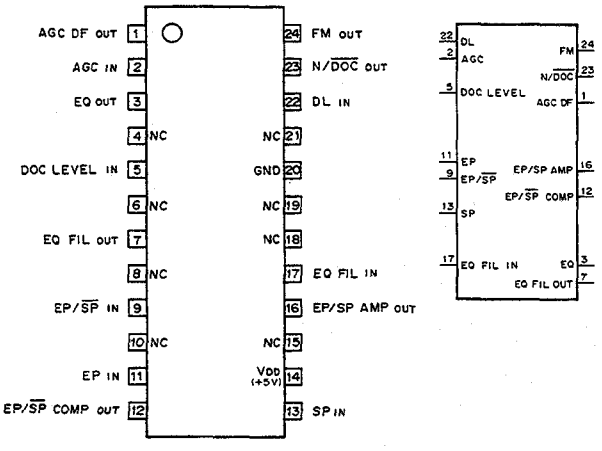
0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE

OUTPUT PULSE WIDTH ≈ 0.7CR



TA8607F (TOSHIBA) FLAT PACKAGE

C-MOS PB FM PROCESSOR FOR VTR
– TOP VIEW –



INPUT

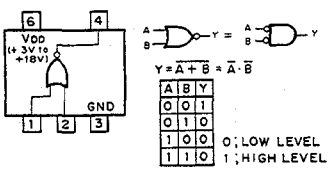
AGC	: AGC AMP SIGNAL
DL	: 1H DELAY LEVEL SIGNAL
DOC	: DOC DETECT LEVEL ADJUSTMENT
EP	: EP INPUT SIGNAL
EP/$\overline{SP}$	: CONTROL SIGNAL (H : EP/L : SP)
EQ FIL IN	: EQUALIZER FILTER SIGNAL
SP	: SP INPUT SIGNAL

OUTPUT

AGC DF	: AGC DETECT FILTER SIGNAL
EP/$\overline{SP}$ AMP	: EP/$\overline{SP}$ 12dB AMPLIFIER SIGNAL
EP/SP COMP	: EP/SP LEVEL COMPARATE SIGNAL
EQ	: EQUALIZER AMP SIGNAL
EQ FIL OUT	: EQUALIZER FILTER SIGNAL
FM	: FM OUTPUT SIGNAL
N/$\overline{DOC}$	: DETECT SIGNAL (H : NORMAL/L : DOC)

TC4S01F (TOSHIBA) FLAT PACKAGE

C-MOS 2-INPUT NOR GATE
– TOP VIEW –

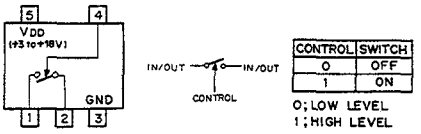


A	B	Y
0	0	1
0	1	0
1	0	0
1	1	0

0 ; LOW LEVEL
1 ; HIGH LEVEL

TC4S66F (TOSHIBA)

C-MOS BILATERAL ANALOG SWITCH
– TOP VIEW –

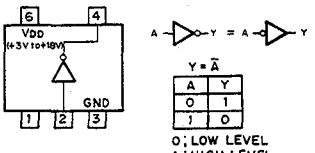


CONTROL	SWITCH
0	OFF
1	ON

0 ; LOW LEVEL
1 ; HIGH LEVEL

TC4SU69F (TOSHIBA) FLAT PACKAGE

C-MOS INVERTER BUFFER
– TOP VIEW –

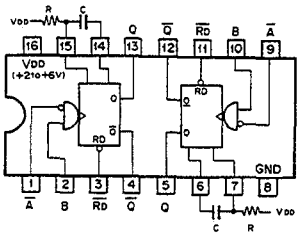


A	Y
0	1
1	0

0 ; LOW LEVEL
1 ; HIGH LEVEL

TC74HC123F (TOSHIBA) FLAT PACKAGE

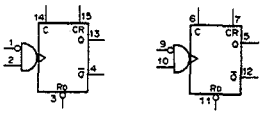
C-MOS DUAL RETRIGGERABLE MONOSTABLE MULTIVIBRATOR
– TOP VIEW –



INPUT			OUTPUT	
RD	A	B	Q	$\overline{Q}$
0	X	X	0	1
1	1	X	0	1
1	X	0	0	1
1	0	⎍	⎍	⎍
1	↓	1	⎍	⎍
⎍	0	1	⎍	⎍

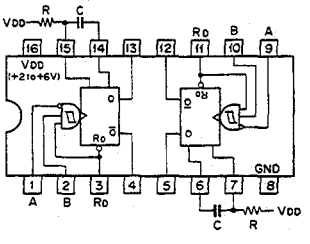
0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE

OUTPUT PULSE WIDTH = 0.46CR



TC74HC221AF (TOSHIBA) FLAT PACKAGE

C-MOS MONOSTABLE MULTIVIBRATOR WITH SCHMITT TRIGGER INPUT
– TOP VIEW –



INPUTS			OUTPUTS	
RD	A	B	Q	$\overline{Q}$
0	X	X	0	1
X	1	X	0	1
X	X	0	0	1
1	0	↑	⎍	⎍
1	↓	1	⎍	⎍
↑	0	1	⎍	⎍

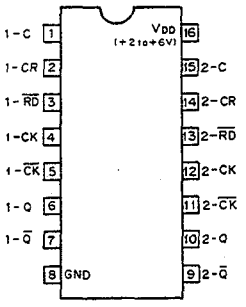
0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE

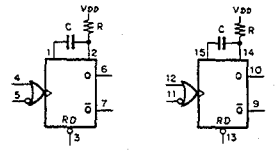
OUTPUT PULSE WIDTH = 0.7CR

TC74HC4538AF (TOSHIBA) FLAT PACKAGE

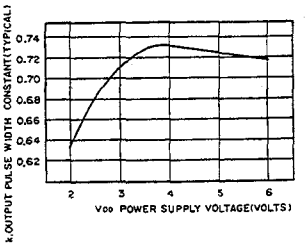
C - MOS DUAL RETRIGGERABLE / NON - RETRIGGERABLE MONOSTABLE MULTIVIBRATOR

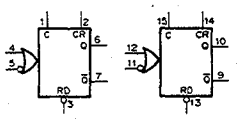
– TOP VIEW –





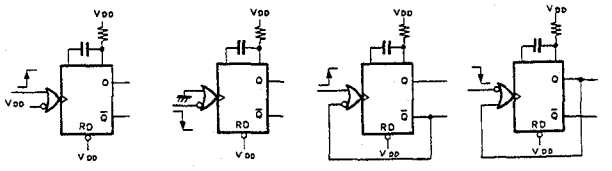
OUTPUT PULSE WIDTH = k·C·R





RETRIGGERABLE M.M.V

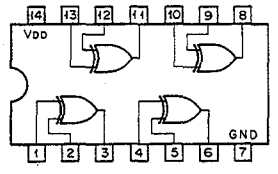
NON-RETRIGGERABLE M.M.V



TC74HC86AF (TOSHIBA) FLAT PACKAGE

C-MOS EXCLUSIVE OR GATE

– TOP VIEW –



A	B	Y
0	0	0
0	1	1
1	0	1
1	1	0

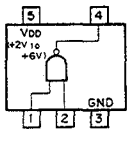
0; LOW LEVEL
1; HIGH LEVEL

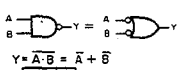
TYPE	VDD
TC74AC86F	+2 to +5.5V
OTHER TYPES	+2 to +6V

TC7S00F (TOSHIBA) FLAT PACKAGE

C-MOS 2-INPUT NAND GATE

– TOP VIEW –





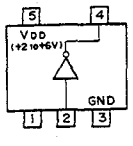
A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

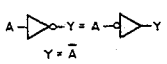
0; LOW LEVEL
1; HIGH LEVEL

TC7S04F (TOSHIBA) FLAT PACKAGE
TC7SU04F (TOSHIBA) FLAT PACKAGE

C-MOS INVERTER

– TOP VIEW –





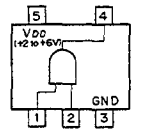
A	Y
0	1
1	0

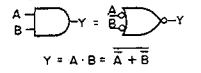
0; LOW LEVEL
1; HIGH LEVEL

TC7S08F (TOSHIBA) FLAT PACKAGE

C-MOS 2-INPUT AND GATE

– TOP VIEW –





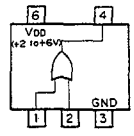
A	B	Y
0	0	0
0	1	0
1	0	0
1	1	1

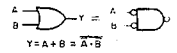
0; LOW LEVEL
1; HIGH LEVEL

TC7S32F (TOSHIBA) FLAT PACKAGE

C-MOS 2-INPUT OR GATE

– TOP VIEW –





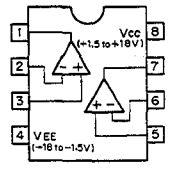
A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

0; LOW LEVEL
1; HIGH LEVEL

TL062CPS (TI) FLAT PACKAGE

OPERATIONAL AMPLIFIER
(JFET INPUT)

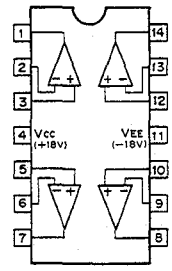
– TOP VIEW –



TL064CNS (TI) FLAT PACKAGE

OPERATIONAL AMPLIFIER
(J FET-INPUT)

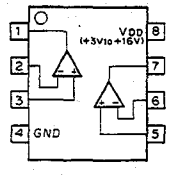
– TOP VIEW –



TLC27M2CPS (TI) FLAT PACKAGE

OPERATIONAL AMPLIFIER

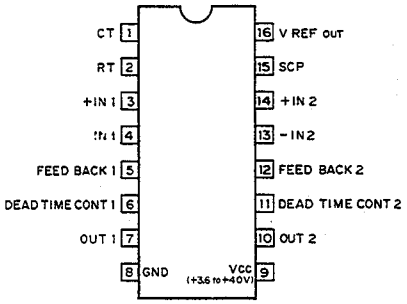
– TOP VIEW –

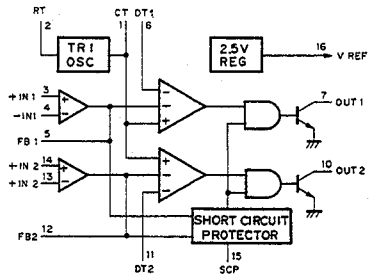


TL1451ACNS (TI) FLAT PACKAGE

DUAL PWM POWER CONTROLLER

– TOP VIEW –

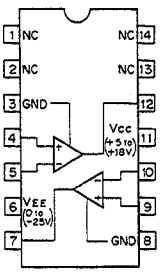




UPC319G2 (NEC) FLAT PACKAGE

DUAL VOLTAGE COMPARATOR

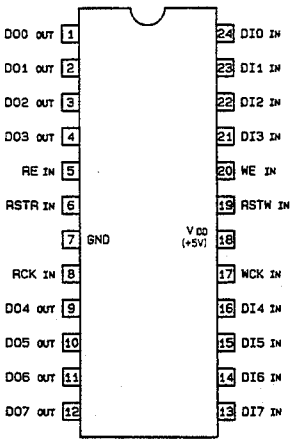
– TOP VIEW –

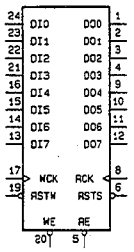


UPD42505C-50 (NEC) (ACCESS TIME = 40nS)

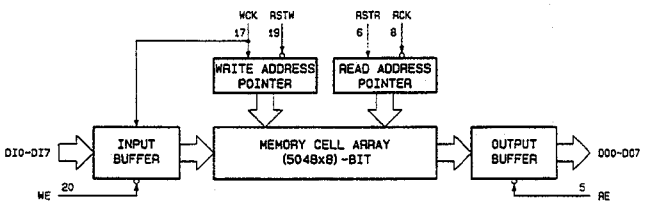
C-MOS 5048x8-BIT FIFO MEMORY

– TOP VIEW –

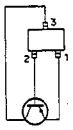




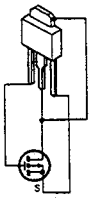
WCK: WRITE CLOCK INPUT
RCK: READ CLOCK INPUT
WE: WRITE ENABLE INPUT
RE: READ ENABLE INPUT
RSTW: WRITE RESET INPUT
RSTR: READ RESET INPUT
DI0-7: DATA INPUTS
DO0-7: DATA OUTPUTS



(SCALE 4/1) TOP VIEW

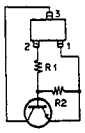


2SA1610
2SA1611



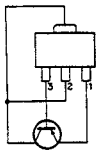
2SJ132

TOP VIEW (SCALE 4/1)

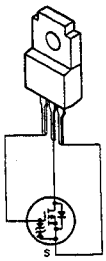


DTC144EU (R1 = 47K, R2 = 47K)

(SCALE 4/1) TOP VIEW

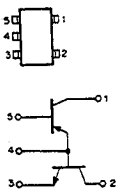


2SB1123
2SB798

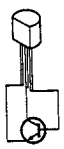


2SJ176

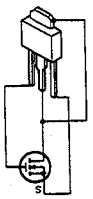
(SCALE 6/1) TOP VIEW



FMY3

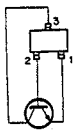


2SC2120



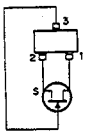
2SK738

(SCALE 4/1) TOP VIEW

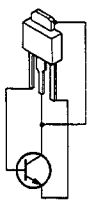


2SC4177
2SC4178
2SC4213
2SD596

TOP VIEW (SCALE 4/1)

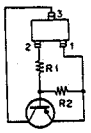


2SK94



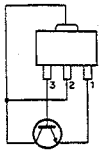
2SD1164

TOP VIEW (SCALE 4/1)



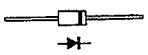
DTA144EU (R1 = 47K, R2 = 47K)

TOP VIEW (SCALE 4/1)



2SD1623

DIODE



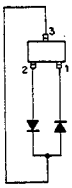
1SS119
1SS82

FC52M
FC54M

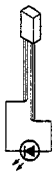
(SCALE 4/1)
TOP VIEW

SB007-03CP

(SCALE 4/1)
TOP VIEW

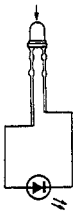


DA204U



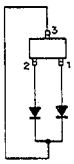
PR5551K ; RED

RADIATION SIDE

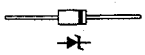


SLH-34YC3 ; YELLOW

(SCALE 4/1)
TOP VIEW

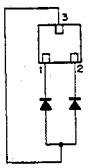


DAN202U



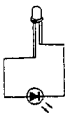
RD ? ?ESB ?

TOP VIEW (SCALE 4/1)

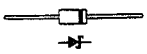


DAP202U

RD ? ?M

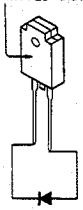


BR5505S ; RED

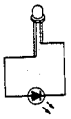


ERA82-004

PRINTED SIDE



ERC62M-004



EBR3402S ; RED

SECTION 11
SCHEMATIC DIAGRAM

回路図内において、REF. NO の近傍に下記記号が記載されていますが、これは生産時の部品データです。

In the schematic diagrams, the following marks are described nearby reference number. These are parts data at factory.

CAPACITOR (C)

AL, AS	ELECTROLYTIC
TA	TANTALUM
CA, CC, CCS, CM, CS	CERAMIC
MPS, PP, PS, PT	MYLAR
MD	DIPPED MICA
MS	MICA

RESISTOR (R)
VARIABLE RESISTOR (RV)

RC, RD	CARBON
RF	FUSE
RN, RS	METAL
RW	WIREWOUND

Circuit Function of the Printed Wiring Boards.

System	Board	Circuit Function
VIDEO	PA-119	Video PB Head Amplifier
		Video REC Head Connection
	LD-39	Video REC Head/PB RF Connection
		Drum FG/PG Amplifier
	VRP-1	Y/C Separator & CTDM
		Modulator/Demodulator
		Video Output/REC Amplifier
	TBC-19	Time Base Corrector
		Video Encoder
	CC-47	Video Input/Meter Driver
AUDIO	AU-142	LNG Audio REC/PB System
		AFM REC/PB System
	VR-118	Audio Level Control
		Power Switch
	DUS-339	Phones Jack
	FE-11	Full Erase Oscillator
	CP-164/A	Audio Input/Output System
		Panel Switches
SERVO • SYSTEM CONTROL • TIME CODE	SST-1	Servo & System Control
		Time Code
	CS-25	Cassette In Detector
	CS-26	Cassette Up/Down Detector
	SE-158	Thread/Unthread End Detector
		Cassette/Tape Detector
	DET-15	Threading FG Detector
	TR-57	S-Tension Detector
	CON-18	TC IN/OUT Connector
POWER	BC-23	Battery Terminal
	DC-52	External DC IN
	FU-52	Fuse
	PSW-12	DC-DC Converter
OTHER	MB-335	Mother Board
	SR-50	Slip-Ring

11-1

PART LOCATION

VRP-1 (1-638-693-14)

CN1	A-2 *	FB104	C-1	IC218	E-4	Q9	B-6 *	Q410	D-6 *	Q632	J-9	Q1010	K-2 *	RV533	E-8	TP302	F-6
CN2	A-3 *	FB105	B-1	IC219	D-4	Q10	A-4 *	Q411	D-6 *	Q633	G-6 *	Q1011	K-2 *	RV534	D-8	TP303	E-6
CN3	A-4 *	FB500	C-7	IC220	C-4	Q11	A-4	Q412	D-6 *	Q701	K-8 *	Q1012	K-2 *	RV541	F-8	TP304	F-6
CN4	C-9 *	FB501	C-7 *	IC221	D-3	Q12	A-4 *	Q413	D-6 *	Q702	J-7 *	Q1013	K-3 *	RV542	E-8	TP305	F-6
CN5	E-9			IC222	E-4	Q13	A-5	Q414	D-6 *	Q703	J-6 *	Q1014	K-2 *	RV543	D-8	TP306	E-6
CN6	G-9	FL1	B-5	IC223	E-3	Q14	B-4	Q415	D-6 *	Q704	J-6	Q1015	K-2 *	RV544	D-8	TP307	D-5
CN7	J-9 *	FL101	B-3	IC301	D-5	Q16	A-7	Q417	B-6 *	Q705	J-6	Q1017	K-4	RV601	G-7	TP308	E-6
CN8	E-9 *	FL102	A-1	IC302	F-5	Q17	B-4 *	Q418	C-6 *	Q706	J-7			RV602	H-7	TP401	C-4
CN9	H-9 *	FL103	B-3	IC303	E-6 *	Q18	B-5 *	Q419	C-6 *	Q707	H-8 *	RV1	A-6	RV603	H-7	TP402	D-6
CN10	B-2 *	FL104	B-3	IC401	C-5	Q19	B-4 *	Q420	C-6 *	Q708	J-6 *	RV2	A-6	RV604	H-7	TP403	C-6
CN501	E-8	FL201	F-4	IC402	C-6	Q21	B-4	Q500	D-7 *	Q709	H-8 *	RV3	A-5	RV605	G-6	TP407	B-5
CN502	E-8	FL301	F-5	IC501	F-8	Q101	A-3	Q501	E-7 *	Q710	J-8 *	RV5	B-7	RV606	H-6	TP408	D-5
CN503	E-7	FL401	D-5	IC502	C-7 *	Q102	B-3 *	Q502	E-7	Q712	J-6 *	RV7	A-7	RV607	H-7	TP501	E-7
CN601	G-9 *	FL801	H-4	IC503	E-8	Q103	B-2 *	Q503	F-7 *	Q713	J-8 *	RV8	A-8	RV608	F-7	TP502	E-7
CN602	H-8	FL802	H-2	IC504	E-8	Q104	B-2 *	Q504	F-8 *	Q714	J-7	RV9	B-8	RV609	F-6	TP503	D-7
CN603	K-8	FL803	G-2	IC505	D-8	Q105	A-3 *	Q505	F-8 *	Q730	J-8	RV10	B-7	RV610	F-8	TP504	D-7
CN604	K-8	FL901	J-3	IC506	C-8	Q106	A-1	Q506	E-7 *	Q731	K-9	RV101	A-3	RV611	F-7	TP505	D-9
				IC508	F-7 *	Q107	B-1 *	Q507	E-7	Q732	K-8	RV102	A-3	RV612	G-8	TP506	D-7
COP501	E-8	IC1	B-8	IC510	C-7	Q108	A-2	Q508	E-7 *	Q801	G-5	RV103	A-2	RV613	G-8	TP602	H-8
COP502	E-8	IC2	A-8	IC511	C-7	Q109	A-1	Q509	E-8 *	Q802	G-4	RV104	A-1	RV614	H-6	TP603	G-7
COP503	E-8	IC3	A-8 *	IC601	K-6	Q110	B-2 *	Q510	E-8 *	Q803	G-4	RV105	C-3	RV701	K-7	TP604	G-6
COP504	D-8	IC4	C-8 *	IC602	K-7	Q111	B-4	Q511	F-7 *	Q804	G-5 *	RV106	B-4	RV702	K-7	TP605	G-6
		IC5	A-4	IC603	K-6 *	Q113	C-4	Q512	F-7 *	Q805	G-4 *	RV201	G-3	RV703	J-7	TP606	G-6
COR501	E-8	IC6	B-4	IC604	H-7 *	Q114	D-4 *	Q513	F-7 *	Q806	G-4 *	RV203	E-1	RV704	K-7	TP607	G-8
COR502	E-8	IC7	A-6	IC605	H-8	Q115	B-2 *	Q514	F-7 *	Q807	G-4 *	RV204	E-1	RV705	J-6	TP610	H-9
COR503	E-8	IC8	A-4	IC606	G-7	Q116	B-2 *	Q515	D-7 *	Q808	H-5 *	RV206	F-1	RV706	J-6	TP701	H-9
COR504	D-8	IC9	B-6 *	IC607	G-5	Q117	A-2 *	Q516	D-7 *	Q809	H-4 *	RV207	F-1	RV707	K-7	TP702	K-8
		IC10	A-6 *	IC609	H-6 *	Q119	A-2	Q517	D-7	Q810	G-4 *	RV208	F-1	RV708	J-7	TP703	J-7
DL101	B-1	IC11	B-7	IC610	G-6 *	Q201	E-2 *	Q518	D-7 *	Q811	G-4 *	RV209	F-1	RV709	J-6	TP704	H-7
DL201	E-1	IC12	A-8 *	IC611	H-5 *	Q202	E-2 *	Q519	E-8 *	Q812	H-4 *	RV210	F-1	RV710	H-8	TP705	J-6
DL601	H-7	IC13	B-8 *	IC612	K-7	Q203	G-4 *	Q520	D-8 *	Q813	H-4 *	RV211	F-2	RV711	H-7	TP706	J-6
DL602	G-7	IC14	B-7 *	IC613	H-8	Q204	G-3 *	Q521	D-7 *	Q814	H-4 *	RV212	F-2	RV712	J-9	TP707	J-8
DL701	K-7	IC15	A-7 *	IC614	J-9	Q205	F-3 *	Q522	D-7	Q815	G-3 *	RV301	F-5	RV713	J-8	TP801	G-5
DL702	H-7	IC16	A-9	IC702	K-9	Q206	D-2 *	Q523	D-7 *	Q816	H-2 *	RV302	F-5	RV801	H-5	TP802	G-4
		IC17	A-6	IC703	J-7	Q207	E-2 *	Q524	D-8 *	Q817	H-3 *	RV303	F-6	RV802	J-2	TP803	H-2
D101	A-2 *	IC18	C-9	IC704	K-7 *	Q208	E-4 *	Q525	D-8 *	Q818	G-2 *	RV304	E-6	RV803	H-2	TP805	G-2
D102	A-2	IC101	B-3	IC706	J-6 *	Q209	E-4 *	Q526	C-7	Q821	H-2 *	RV306	D-5	RV804	H-4	TP901	J-5
D103	B-2 *	IC103	A-3	IC707	J-5	Q210	F-3 *	Q527	C-7 *	Q822	H-2	RV307	D-6	RV805	H-4	TP902	J-5
D111	A-2 *	IC104	A-1	IC708	K-8	Q211	F-3 *	Q528	C-8 *	Q823	H-2	RV308	D-6	RV806	G-4	TP903	J-2
D112	A-2 *	IC105	A-2 *	IC801	G-4	Q212	G-3 *	Q529	D-7 *	Q824	H-2	RV309	F-7	RV807	H-1	TP905	J-2
D121	A-2	IC108	B-2 *	IC802	H-2 *	Q213	F-1 *	Q530	E-6 *	Q825	H-2 *	RV310	E-7	RV901	J-5	TP906	J-3
D122	A-2	IC109	B-1 *	IC803	H-1	Q214	F-1 *	Q601	K-6 *	Q826	H-2 *	RV311	E-6	RV902	J-3		
D201	G-3	IC110	C-1	IC804	G-1	Q215	F-1 *	Q602	K-5	Q827	H-1 *	RV312	E-7	RV903	J-3	T501	F-8
D202	E-3	IC111	C-1	IC806	K-6	Q216	F-3 *	Q603	K-6	Q901	J-5	RV313	D-6	RV904	K-4	T502	E-8
D203	E-4 *	IC112	C-3	IC807	H-4 *	Q218	F-3 *	Q604	K-6	Q902	J-4	RV314	E-6	RV905	K-4	T503	E-8
D204	D-4	IC113	D-3	IC818	H-2 *	Q219	F-4	Q605	H-8 *	Q903	J-4	RV401	D-5	RV906	J-4	T504	D-8
D301	F-5 *	IC114	C-3 *	IC901	J-4	Q301	E-5 *	Q606	H-8 *	Q904	J-5 *	RV406	B-5	RV907	J-1		
D500	C-7	IC115	C-4 *	IC902	J-2	Q302	E-5 *	Q607	G-7 *	Q905	J-4 *	RV407	B-6	RV1001	K-2	X201	E-4
D1001	K-4	IC116	B-4	IC903	J-2	Q303	F-5 *	Q608	H-6	Q906	J-4 *	RV408	B-6			X202	E-1
D1002	K-1 *	IC118	C-3 *	IC907	K-5 *	Q304	F-5 *	Q609	H-6	Q907	K-4 *	RV409	C-6	S1	B-9		
D1003	K-2	IC120	B-2	IC918	J-2 *	Q306	F-6 *	Q610	G-6	Q908	K-4 *	RV410	C-7	S2	H-6 *	* mark; B SIDE mount.	
		IC121	C-1	IC1001	K-2	Q307	E-5 *	Q611	G-6 *	Q909	J-3 *	RV411	D-6	S201	F-1		
E1	A-6	IC122	B-1	IC1002	K-4 *	Q308	D-6 *	Q612	G-6	Q910	J-2 *	RV412	D-7				
E101	B-3	IC201	E-2	IC1003	K-3	Q309	D-6 *	Q613	G-6 *	Q913	J-2	RV413	B-6	TP1	B-4		
E201	E-1	IC203	E-3 *	IC1004	K-1	Q310	D-6 *	Q614	G-6	Q914	J-2	RV414	D-6	TP2	A-4		
E301	F-6	IC204	F-2	IC1005	K-4	Q311	E-5 *	Q615	G-6	Q915	K-2	RV501	F-7	TP3	A-4		
E401	D-6	IC205	F-4	IC1006	K-5	Q312	E-6 *	Q617	G-6 *	Q916	J-3 *	RV502	E-7	TP5	A-6		
E601	H-7	IC206	E-4	IC1007	K-3	Q314	E-6 *	Q618	G-6	Q917	J-2 *	RV503	E-7	TP6	A-6		
E701	K-7	IC207	E-3 *			Q315	E-6 *	Q619	G-7	Q918	J-2 *	RV504	D-7	TP7	A-5		
E801	G-2	IC208	E-2 *	LV201	E-3	Q316	E-6 *	Q620	G-5 *	Q919	K-2	RV511	F-7	TP8	A-5		
E901	J-2	IC209	G-4			Q317	E-6 *	Q621	G-7 *	Q1001	K-5	RV512	E-7	TP101	B-2		
		IC210	E-1 *	Q1	B-8 *	Q402	D-5 *	Q622	G-8 *	Q1002	K-4	RV513	D-7	TP102	A-1		
FB1	A-5 *	IC211	F-1 *	Q2	C-8	Q403	D-5 *	Q623	F-8 *	Q1003	K-3 *	RV514	D-7	TP201	E-3		
FB2	A-5 *	IC212	F-1 *	Q3	C-8	Q404	C-5 *	Q624	F-8 *	Q1004	K-3 *	RV521	F-7	TP202	F-1		
FB3	A-4 *	IC213	F-2 *	Q4	C-8	Q405	C-5 *	Q626	G-8 *	Q1005	K-3 *	RV522	E-7	TP203	G-2		
FB4	C-9	IC214	F-2 *	Q5	B-8	Q406	B-6 *	Q627	G-7	Q1006	K-3 *	RV523	D-7	TP206	F-1		
FB101	A-3	IC215	F-4 *	Q6	A-6 *	Q407	B-6 *	Q628	G-6 *	Q1007	K-3 *	RV524	D-7	TP207	F-4		
FB102	A-1 *	IC216	E-4	Q7	B-5 *	Q408	B-6 *	Q630	G-8	Q1008	K-1 *	RV531	F-8	TP208	F-3		
FB103	C-2 *	IC217	F-3	Q8	B-5 *	Q409	C-5 *	Q631	K-9	Q1009	K-1 *	RV532	E-8	TP301	E-4		

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CN1	A-8 *	IC103	C-1	IC704	D-8	Q607	G-9 *	RV814	B-8		
CN2	A-2 *	IC104	C-2 *	IC705	D-5	Q608	G-9 *	RV815	B-8		
CN3	G-9 *	IC105	C-1	IC706	D-5	Q609	G-9 *	RV816	B-9		
		IC106	C-1	IC707	D-5	Q610	F-9 *	RV817	E-1		
DL701	C-7	IC201	B-2 *	IC708	D-5	Q611	G-9 *	RV818	B-9		
DL801	B-6	IC202	B-2	IC709	C-5	Q701	D-6	RV819	B-7		
DL802	B-6	IC204	B-2	IC710	D-5	Q702	D-7				
		IC205	C-2	IC711	C-5	Q707	C-7 *	S601	F-9		
D101	C-2 *	IC301	C-1 *	IC712	C-5	Q708	C-8 *	S801	C-9		
D201	C-3 *	IC302	E-2	IC713	B-5	Q709	C-7 *				
D302	D-2	IC303	C-2 *	IC714	B-5	Q710	C-8 *	TH301	D-2 *		
D303	E-2	IC304	E-2 *	IC715	E-6 *	Q715	B-5 *	TH302	D-1 *		
D304	E-1	IC305	E-2	IC716	E-6 *	Q716	B-5 *	TH401	C-4 *		
D306	D-1	IC306	C-2 *	IC717	F-6	Q801	D-9 *	TH402	C-3 *		
D307	D-1 *	IC308	E-3	IC801	B-6	Q802	D-9				
D308	E-1	IC309	E-3	IC802	B-6	Q803	D-9	TP101	A-2		
D309	D-1	IC310	E-2	IC803	C-9	Q804	D-9 *	TP102	C-1		
D402	C-4 *	IC311	D-1	IC804	B-6	Q805	D-9 *	TP201	A-2		
D403	D-4	IC312	D-1	IC805	C-8	Q806	B-8	TP202	C-2		
D404	D-3	IC317	E-2	IC806	C-9	Q807	D-9	TP302	D-1		
D406	C-3	IC318	E-2	IC807	D-9	Q808	B-6 *	TP305	E-2		
D407	D-4	IC401	E-5	IC808	B-8	Q809	B-6 *	TP307	D-1		
D409	D-3 *	IC403	D-4	IC810	C-8	Q810	B-6	TP309	D-1		
D501	B-5 *	IC404	C-3 *	IC811	C-9	Q811	B-7 *	TP310	D-1		
D502	F-6 *	IC405	C-3 *	IC812	B-8	Q812	B-9	TP402	D-3		
D503	F-6 *	IC406	D-4 *	IC814	B-9	Q813	C-9 *	TP405	E-4		
D504	F-4 *	IC407	E-4	IC815	B-9	Q814	E-7 *	TP501	E-4		
D505	F-1 *	IC408	C-4 *	IC816	C-9	Q815	B-8 *	TP601	F-7		
D506	F-6 *	IC410	E-4	IC817	A-7	Q816	B-8 *	TP602	G-8		
D602	G-9 *	IC411	E-5			Q817	E-8 *	TP603	F-8		
D603	G-9 *	IC412	D-4	LV301	E-1	Q818	B-8	TP604	G-8		
D604	G-9 *	IC413	A-6	LV401	E-3	Q819	C-9 *	TP605	F-9		
D701	B-5 *	IC415	B-5	LV801	E-7	Q820	B-6	TP606	G-9		
D702	C-5 *	IC416	F-5 *	LV802	E-8	Q821	B-7	TP607	F-9		
D703	B-5 *	IC417	D-4			Q822	D-7 *	TP608	G-8		
D704	B-5 *	IC501	F-1	Q1	B-5 *			TP609	E-9		
		IC502	G-2	Q2	B-4 *	RV101	B-2	TP610	E-9		
E1	B-5	IC503	G-4	Q3	B-4 *	RV102	B-2	TP701	D-6		
E101	C-1	IC504	G-3 *	Q4	B-4 *	RV201	B-3	TP702	C-7		
E201	A-3	IC505	G-2 *	Q5	B-4 *	RV202	B-3	TP703	C-7		
E301	D-3	IC506	G-5 *	Q6	B-4 *	RV301	E-1	TP801	B-8		
E302	E-1	IC507	G-4 *	Q101	A-1 *	RV307	C-2	TP802	B-6		
E401	E-5	IC508	F-6	Q102	B-2 *	RV308	D-1	TP803	A-7		
E402	D-3	IC509	E-6	Q201	A-2	RV309	E-1	TP804	B-8		
E501	G-3	IC510	G-7 *	Q202	A-2 *	RV310	D-1	TP805	A-9		
E502	F-7	IC511	G-1	Q301	D-3 *	RV401	C-3	TP806	A-9		
E601	G-7	IC512	E-4	Q302	D-3 *	RV404	E-3	TP807	B-9		
E701	D-7	IC514	A-1	Q303	D-1 *	RV405	C-3				
E801	C-8	IC601	G-8 *	Q304	E-1 *	RV406	C-3	X601	E-8		
E802	C-6	IC602	F-8	Q305	E-1 *	RV409	B-5	X602	F-9		
E803	B-9	IC603	E-8	Q306	C-1	RV601	E-8				
		IC604	F-7	Q307	D-1	RV602	G-9	* mark; B SIDE mount.			
FB601	E-8 *	IC605	G-8	Q308	D-1	RV603	F-9				
FB602	E-9 *	IC606	E-9	Q309	D-1 *	RV605	F-9				
		IC607	F-9	Q310	D-1 *	RV606	E-1				
FL101	A-1	IC608	E-9	Q311	D-1	RV701	D-6				
FL201	A-2	IC609	E-9	Q401	E-5 *	RV702	D-8				
FL701	C-7	IC610	E-9	Q402	D-5 *	RV703	D-8				
FL702	C-8	IC611	F-8	Q403	C-4	RV705	D-6				
FL703	C-6	IC612	F-8	Q404	E-3 *	RV706	C-8				
FL801	B-8	IC613	F-7	Q405	E-4 *	RV801	D-9				
		IC614	E-7	Q406	E-3 *	RV802	D-8				
IC1	B-3 *	IC615	G-9	Q407	C-3 *	RV803	D-9				
IC2	B-4	IC616	E-8	Q601	F-7 *	RV804	B-7				
IC3	A-4	IC617	F-8 *	Q602	G-9 *	RV805	D-9				
IC4	B-4 *	IC618	F-9	Q603	F-9 *	RV806	B-6				
IC5	A-3 *	IC701	B-5	Q604	F-9 *	RV807	B-7				
IC101	B-1	IC702	D-6	Q605	F-9 *	RV808	B-7				
IC102	B-1	IC703	D-7	Q606	F-7 *	RV813	E-7				

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CN301	A-1	IC851	A-2 *	Q516	A-3 *	RV452	E-4 *	T905	C-4
CN302	E-1	IC852	A-2 *	Q551	E-2 *	RV453	E-4 *	T906	C-4
CN303	A-3	IC853	A-4	Q601	F-2	RV454	D-4 *		
CN311	C-4	IC901	B-3	Q602	D-2 *	RV455	E-3 *	X501	A-3
CN312	F-4	IC902	A-3	Q603	F-2	RV456	E-3 *		
		IC903	A-4	Q604	D-2 *	RV551	F-4	* mark; B SIDE mount.	
D201	E-3 *			Q605	B-2 *	RV601	E-2 *		
D251	E-3 *	LV301	C-4	Q651	F-2	RV602	F-2 *		
D201	E-3 *	LV351	C-4	Q701	F-2 *	RV603	B-1 *		
D403	E-3 *	LV401	D-3	Q702	D-1 *	RV604	C-2 *		
D451	F-4 *	LV402	E-3	Q704	B-1 *	RV605	D-1 *		
D502	A-3 *	LV451	D-4	Q705	B-2 *	RV651	E-2 *		
D503	F-2 *	LV452	E-4	Q706	A-2 *	RV653	C-1 *		
D504	F-2 *	LV901	A-4	Q707	B-2 *	RV654	C-2 *		
D571	A-3 *	LV902	A-4	Q751	A-2 *	RV655	D-2 *		
D601	B-2 *			Q754	B-1 *	RV701	E-1 *		
D602	B-2 *	Q201	E-3 *	Q755	B-1 *	RV702	B-1 *		
D603	F-2 *	Q202	F-3 *	Q756	C-1 *	RV703	A-1 *		
D604	F-2 *	Q203	B-3	Q757	B-2	RV801	F-3 *		
D651	C-2 *	Q251	E-3 *	Q758	B-2 *	RV851	F-3 *		
D701	B-2 *	Q252	F-3 *	Q781	A-4 *	RV901	B-4 *		
D702	A-2 *	Q253	B-3	Q801	F-2	RV902	B-4 *		
D751	B-2	Q301	D-3 *	Q804	F-3 *	RV903	B-3 *		
D752	B-3	Q302	D-3 *	Q805	F-4 *	RV904	C-3 *		
D753	A-4 *	Q303	C-4 *	Q871	A-2	RV905	B-3 *		
D871	A-1 *	Q304	C-3	Q875	A-2	RV906	A-4 *		
D902	A-4 *	Q305	D-3 *	Q876	A-1 *	RV907	A-4 *		
D903	A-4 *	Q306	C-3 *	Q879	F-3				
D904	B-4 *	Q353	C-3 *	Q880	A-2	S201	E-4		
D905	A-4 *	Q354	C-3	Q881	A-4	S202	E-4		
		Q355	D-3 *	Q903	B-4				
E401	E-3	Q356	C-3 *	Q904	C-4	TP201	F-3		
E451	C-4	Q401	D-3	Q905	A-4	TP202	E-3		
E501	B-3	Q402	E-2 *	Q906	C-4	TP401	D-3		
E901	A-3	Q404	D-4 *	Q907	C-4 *	TP402	D-3		
		Q405	E-3 *	Q908	A-4	TP403	C-4		
FL201	F-3	Q406	E-3 *	Q909	A-4	TP404	D-4		
FL601	F-1	Q407	F-3 *	Q910	B-4	TP405	E-3		
FL602	C-1 *	Q411	F-3 *	Q911	B-4	TP451	D-4		
FL652	D-1 *	Q412	F-3 *	Q912	B-4 *	TP452	D-4		
FL701	B-1	Q413	E-3 *	Q913	B-4 *	TP453	D-4		
FL702	A-1	Q414	E-3 *	Q916	C-4 *	TP454	D-4		
		Q431	E-4 *	Q919	A-4 *	TP455	F-4		
IC201	F-3	Q432	F-4 *	Q920	A-4 *	TP501	A-3		
IC202	F-4	Q433	F-4 *	Q921	A-4 *	TP503	A-3		
IC203	E-4	Q434	F-4 *	Q922	A-4 *	TP601	E-2		
IC301	D-2	Q451	D-4 *	Q925	C-4	TP603	F-2		
IC302	C-2	Q452	E-3 *	Q926	C-3 *	TP604	C-1		
IC303	C-2	Q454	D-4 *	Q927	B-4	TP605	D-1		
IC351	D-3	Q455	F-4 *	Q928	B-4	TP651	E-2		
IC352	C-3	Q456	F-4 *	Q929	C-3 *	TP653	F-2		
IC353	C-3	Q457	F-4 *			TP654	D-1		
IC401	D-4	Q481	E-4 *	RV301	D-2 *	TP655	D-1		
IC402	E-4	Q482	F-4 *	RV302	D-3 *	TP701	E-1		
IC403	E-3	Q483	F-4 *	RV303	D-2 *	TP702	A-1		
IC501	A-3	Q501	A-3 *	RV304	D-3 *	TP703	F-2		
IC502	B-3	Q502	A-3 *	RV305	B-3 *	TP704	F-2		
IC503	A-3 *	Q503	A-3 *	RV306	C-3 *	TP705	E-1		
IC601	E-1	Q504	A-3 *	RV353	D-3 *	TP801	F-2		
IC602	D-2	Q505	F-2 *	RV354	D-3 *	TP851	F-3		
IC603	B-2	Q506	E-3	RV355	B-3 *	TP901	A-4		
IC604	E-2	Q507	E-3	RV356	C-3 *	TP902	A-4		
IC605	F-2	Q508	A-2	RV402	E-4 *	TP903	C-4		
IC653	C-2	Q509	A-2	RV403	E-4 *	TP905	C-4		
IC701	B-2	Q510	A-3 *	RV404	D-4 *				
IC702	F-2	Q511	A-3 *	RV405	D-3 *	T901	B-4		
IC751	B-1	Q512	A-3 *	RV406	E-3 *	T902	B-4		
IC801	F-3	Q513	A-3 *	RV407	D-3 *	T903	C-4		
IC802	F-3	Q514	B-3	RV451	E-4 *	T904	C-4		

VR-118 (1-638-692-12)

CN551	A-2
CN552	A-1
CN553	B-1
CN554	B-1
CN555	C-1
CN556	C-1
CN557	A-2
D301	B-1 *
D302	C-1 *
IC301	D-2
IC302	B-2
IC303	B-1
IC304	E-2
IC305	B-1
IC306	B-1
IC307	C-1
IC308	B-2
IC309	B-2
IC310	A-2
Q301	C-1 *
Q302	D-2 *
Q303	B-2 *
Q304	C-2 *
Q305	B-1 *
Q306	C-1 *
Q307	B-2 *
Q308	C-2 *
Q309	B-2 *
Q310	D-2 *
Q311	B-1 *
Q312	D-2 *
Q313	B-2 *
Q314	C-1 *
RV301	A-1
RV302	C-1
RV303	D-1
RV304	E-1
RV305	C-2
RV306	C-2
RV307	D-2
RV308	D-2
RV311	B-2 *
RV312	B-2 *
S301	E-2
S302	B-2

* mark; B SIDE mount.

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CN401	K-2	S402	C-1
CN402	L-1	S403	D-1
CN404	H-2	S404	L-2
CN405	G-2	S405	C-2
CN406	J-2	S406	C-2
CN407	G-2	S407	C-2
CN408	L-2	S408	D-2
CN409	B-1	S409	E-1
CN410	A-2	S410	E-1
CN411	A-2	S411	E-1
CN412	G-2	S416	F-1
CN413	J-2	S417	G-1
CN415	K-1	S418	H-1
CN416	H-2	S419	J-1
CN417	G-2	S420	F-2
CN1009	L-2	S421	G-2
		S422	H-2
D101	F-1	S423	K-2
D102	G-1	S424	C-1
D201	G-1		
D202	G-1		
D301	H-1 *	* mark; B SIDE mount.	
D302	H-1 *		
D401	J-1 *		
D402	J-1 *		
D601	G-2		
D602	G-2		
D801	H-2		
D802	H-2		
IC101	G-1 *		
IC102	F-1 *		
IC201	H-1 *		
IC203	L-2 *		
IC301	J-1 *		
IC302	H-1 *		
IC401	J-1 *		
IC551	D-1 *		
IC568	A-2 *		
IC569	A-2 *		
IC601	D-2 *		
IC651	E-1 *		
IC652	E-1 *		
IC655	B-1		
IC656	A-1 *		
IC657	A-1 *		
IC658	B-1 *		
IC701	C-2 *		
IC801	B-2 *		
IC802	B-2 *		
IC901	D-1 *		
IC902	C-1 *		
Q401	K-1 *		
Q402	K-1 *		
Q601	D-2		
Q602	C-2		
Q701	C-2		
Q702	C-2		
Q753	D-1		
Q801	B-2 *		
Q802	B-2 *		
Q901	C-1 *		
Q902	C-1 *		
Q1001	L-2 *		
Q1002	L-2		
Q2001	G-1 *		
S401	C-1		

SST-1 (1-638-690-13)

BT200	B-1	E524	J-6	Q8	E-4 *	TP205	C-11
				Q9	G-11 *	TP206	D-10
CN1	A-12	FB1	C-8	Q10	N-10 *	TP500	G-5
CN2	C-12	FB2	C-5	Q11	B-12 *	TP501	H-4
CN3	G-12	FB3	D-4	Q12	F-4	TP502	P-4
CN4	M-12	FB600	J-2	Q13	E-4 *	TP503	G-5
CN5	P-12			Q14	D-8 *	TP504	P-4
CN6	J-6	IC1	E-10	Q200	B-11 *	TP505	K-11
CN7	K-6	IC2	E-11	Q502	J-5 *	TP506	L-11
CN8	K-1	IC3	C-8	Q503	B-5 *	TP507	M-9
CN9	J-1	IC4	C-9	Q504	J-3	TP508	H-6
		IC5	D-9	Q505	H-4	TP509	K-4
CV200	E-9	IC6	G-7	Q506	J-4	TP510	K-3
CV201	D-5	IC7	G-11	Q507	K-3	TP511	L-5
		IC8	P-10	Q600	P-2	TP512	L-5
D1	D-12 *	IC9	M-10	Q602	P-1 *	TP515	J-6
D2	E-8	IC10	B-5	Q603	K-2 *	TP516	K-4
D3	C-6	IC11	C-7	Q604	M-1	TP517	K-6
D4	C-4	IC12	E-1 *	Q605	L-1 *	TP522	G-4
D5	D-4	IC13	B-6	Q606	J-1	TP523	F-5
D6	D-5	IC200	C-10	Q607	J-2 *	TP525	P-5
D7	N-10 *	IC201	C-11	Q608	G-2 *	TP526	P-7
D8	E-11	IC202	D-11	Q609	G-2	TP527	P-7
D10	E-4	IC203	C-11	Q610	G-2 *	TP528	A-6
D11	C-8 *	IC204	D-10	Q611	G-2	TP529	A-6
D12	N-10 *	IC205	D-10	Q612	J-2	TP532	M-4
D200	C-10 *	IC206	E-9	Q613	H-3 *	TP533	L-4
D201	C-11 *	IC207	C-9	Q614	J-2	TP534	L-6
D202	C-11 *	IC208	E-10	Q615	J-2 *	TP535	K-5
D203	D-10 *	IC209	C-6	Q617	C-2	TP536	H-6
D204	D-11 *	IC210	D-6	Q618	C-1 *	TP537	K-6
D205	C-1 *	IC211	D-10	Q619	D-2	TP600	P-3
D206	B-7	IC212	D-5	Q620	D-3	TP601	N-3
D207	E-9 *	IC213	E-5	Q621	D-2 *	TP602	N-3
D208	D-5	IC214	G-9	Q622	D-3 *	TP603	N-3
D502	G-6	IC501	G-5	Q623	E-2	TP604	L-2
D504	K-4	IC502	H-5	Q624	E-2 *	TP605	N-3
D505	H-3	IC503	H-5	Q625	E-2	TP606	C-3
D506	H-4	IC504	J-2	Q626	E-2 *	TP607	E-3
D509	H-5 *	IC505	H-3	Q629	A-2		
D512	P-9	IC506	K-4	Q631	A-3	X1	E-8
D600	N-2	IC507	H-4	Q633	B-2	X200	E-9
D601	N-2	IC508	K-5	Q635	B-3	X201	D-6
D603	L-1	IC511	G-4	Q637	B-2	X202	D-6
D605	G-2 *	IC512	K-5	Q639	B-3	X501	P-9
D606	G-2 *	IC516	J-5	Q640	A-1 *	X502	P-5
D607	H-1	IC518	G-4	Q641	A-1 *		
D608	D-3	IC519	N-9			* mark; B SIDE mount.	
D609	C-1	IC520	P-10	RV1	B-5		
D610	D-2 *	IC524	M-6	RV500	K-1 *		
D613	A-1 *	IC525	N-5	RV501	P-5		
D614	B-1 *	IC526	P-3	RV504	J-1 *		
D616	A-3	IC527	P-8				
D617	A-3	IC528	P-3	S501	K-1 *		
D618	B-3	IC601	K-1	S502	J-1 *		
D619	B-3	IC602	K-3				
D620	A-8	IC603	G-2	TP1	C-9		
D621	A-8	IC604	G-2	TP2	D-9		
D900	N-7 *	IC605	F-2	TP3	E-8		
D901	A-7 *	IC607	D-2	TP4	G-7		
		IC901	P-4	TP5	D-4		
E200	P-11			TP6	B-4		
E201	C-7	Q1	D-12 *	TP7	F-5		
E501	F-6	Q2	E-11	TP8	E-4		
E502	J-6	Q3	E-11	TP200	C-10		
E503	N-3	Q4	E-12	TP201	D-10		
E504	M-5	Q5	B-4	TP202	D-11		
E510	M-6	Q6	D-4 *	TP203	D-5		
E514	H-5	Q7	E-4 *	TP204	D-5		

KY-207 (1-638-686-12)

CN501	A-2 *	Q101	E-3
CN502	A-3 *	Q201	K-3 *
CN503	D-2 *	Q202	F-1 *
CN504	E-1 *	Q203	H-1 *
CN505	H-1 *	Q204	G-1 *
CN506	G-2	Q205	G-1 *
CN507	G-2	Q206	G-1 *
CN508	J-2	Q207	A-2 *
CN509	J-2	Q208	A-3 *
		Q209	C-3 *
D101	F-1		
D102	H-1	RV201	J-3
D104	F-1	RV202	E-3
D105	J-1	RV203	F-3
D106	G-1	RV204	G-3
D107	K-1	RV205	G-3
D109	G-1	RV206	H-3
D110	K-1	RV207	H-3
D111	E-3 *	RV208	H-3
D112	E-1	RV209	J-3
D113	B-2	RV210	K-3
D114	C-2		
D115	E-1	S101	E-3
D116	A-2	S102	B-3
D117	A-2	S103	E-2
D118	B-2	S104	B-3
D119	D-2	S105	B-3
D120	C-2	S106	A-3
D121	D-2	S107	D-3
D122	A-3 *	S108	E-3
D123	D-3 *	S109	E-3
D124	B-3 *	S110	A-3
D125	B-3 *	S111	A-3
D126	D-2 *	S112	C-3
D127	C-3 *	S113	B-3
D128	A-3 *	S114	C-3
D129	A-3 *	S115	D-3
D130	A-3 *	S116	B-2
D131	A-3 *	S117	D-2
D132	D-2 *	S118	E-3
D133	D-3 *	S119	C-3
D134	C-3 *	S120	D-3
D135	C-3 *	S121	A-2
D136	C-3 *	S122	C-2
D137	D-2 *	S123	E-1
D150	B-1	S124	B-3
D151	C-1	S125	A-3
D152	C-1	S201	F-3
D153	D-1	S202	F-3
D154	A-1	S203	K-2
D155	B-1		
D201	H-1 *		
D202	J-1 *		

* mark; B SIDE mount.

E1	A-1
E2	K-2

IC102	B-2 *
IC105	A-3 *
IC106	B-3 *
IC201	K-3 *
IC202	J-3 *
IC203	F-2 *
IC204	H-2 *
IC205	J-1 *
IC106	E-1 *

ND101	A-1

PSW-12A (1-640-325-11)

CN601	D-3
CN602	D-3
CN603	A-4
D102	D-4
D104	A-3
D105	A-2
D106	C-3
D107	C-3
D108	A-3
F101	C-4
Q101	C-4
Q102	C-4
Q105	A-2 *
Q106	A-2 *
Q107	A-3 *
Q108	A-2
Q109	B-2 *
Q110	B-2 *
Q111	B-2 *
Q112	A-2
Q113	C-2 *
Q114	D-3 *
Q115	C-3 *
Q116	C-2
Q117	C-2 *
Q118	C-3 *
Q119	C-3 *
Q120	C-2
Q121	A-2 *
Q122	A-3 *
Q123	A-3 *
Q124	A-2
Q127	C-3 *
TH101	A-2 *
TH102	B-2 *
TH103	C-2 *
TH104	C-3 *
TH105	A-2 *
T101	A-3

* mark; B SIDE mount.

PSW-12B (1-640-324-11)

D103	A-1
IC101	A-1
IC102	C-1
IC103	B-1
IC104	D-1
Q103	A-1
Q104	A-1
Q125	A-1
Q126	A-1
Q128	C-1
Q129	C-1
Q130	A-1
Q131	A-1
Q132	D-1
RV100	C-1
RV101	C-1
RV102	B-1
RV103	B-1
RV104	A-1
RV105	C-1

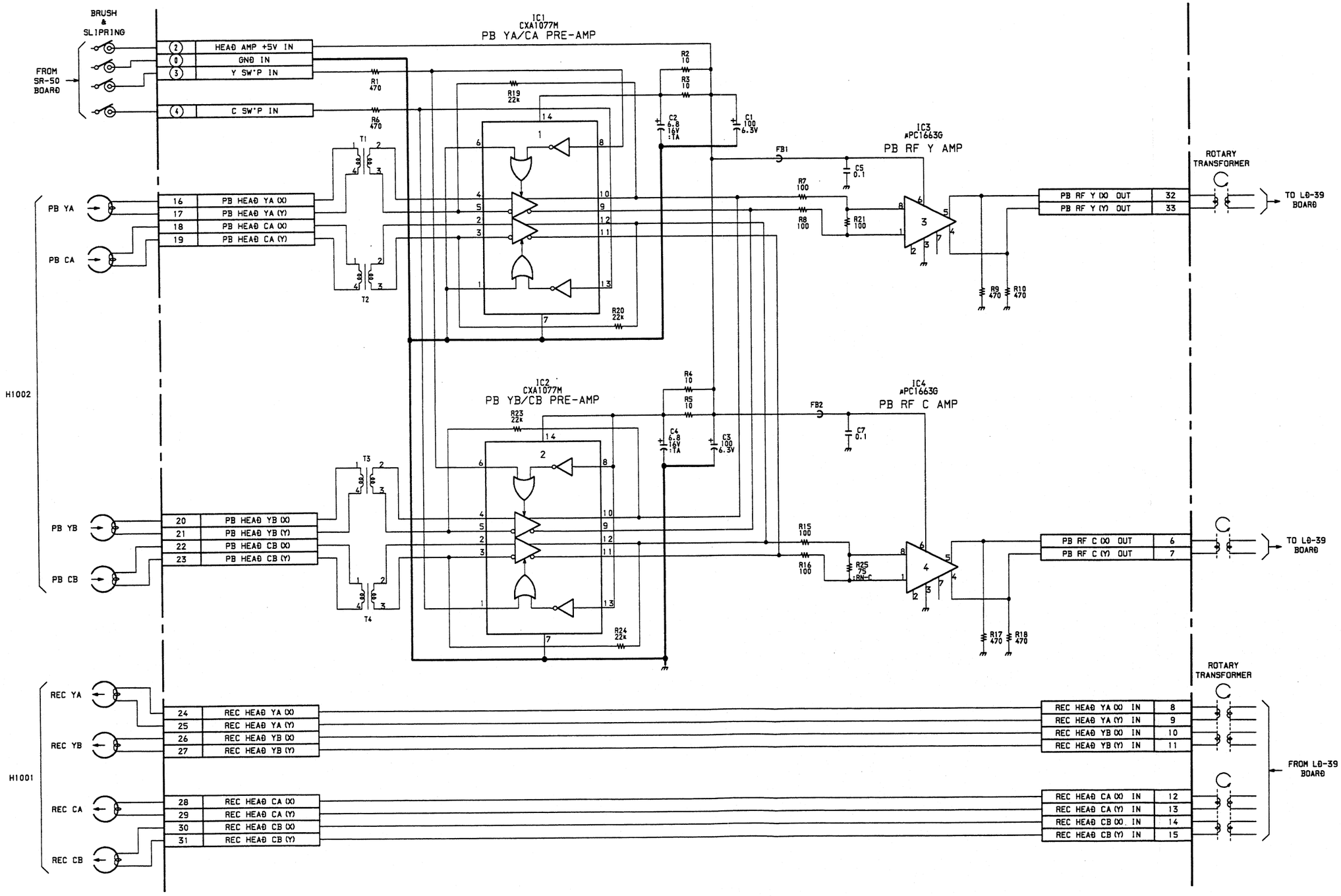
* mark; B SIDE mount.

MB-335 (1-638-687-12)

CN901	F-5
CN902	E-5
CN903	C-5
CN904	B-5
CN905	A-5
CN915	D-6
CN916	C-6
CN921	E-6 *
CN922	B-6 *
CN923	E-2 *
CN924	F-6 *
CN925	F-5 *
CN926	F-1 *
CN927	F-2 *
CN928	F-3 *
CN929	F-6 *
CN930	F-4 *
CN940	F-1
CN941	F-1
CN942	F-1
CN943	F-1
CN944	F-1
CN945	F-2
CN946	F-2
CN947	F-2
CN948	B-1
CN949	A-3
CN950	A-3
CN951	A-1
CN952	A-1
CN953	A-2
CN954	B-1
CN955	B-1
CN956	A-2
CN957	B-1
CN958	B-2
CN959	B-2
CN961	A-3
CN962	A-2
CN965	F-3 *
CN970	B-1
CN971	F-1
CN1001	E-1
CN1002	E-1

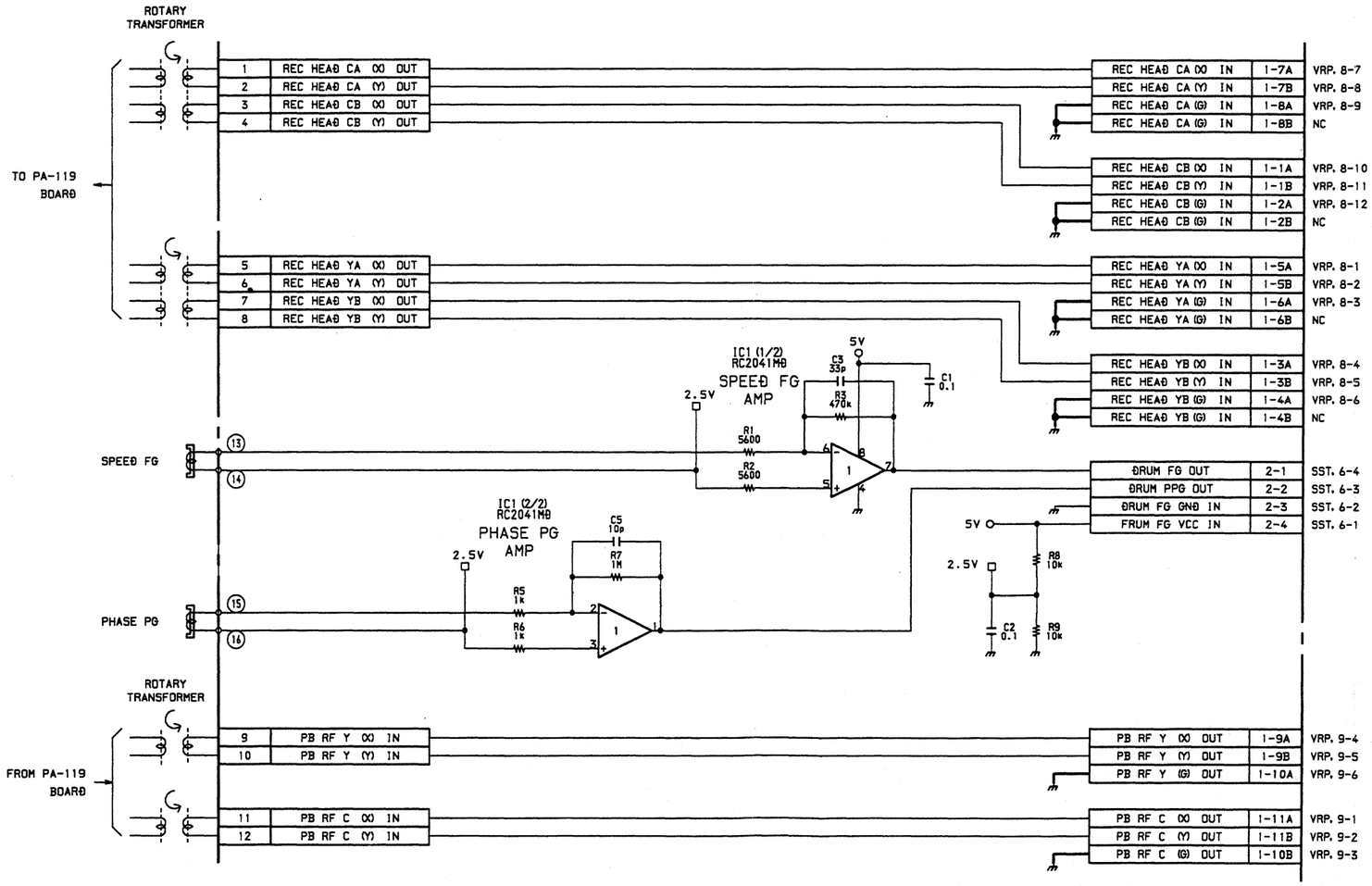
* mark; B SIDE mount.

PA-119; VIDEO PB HEAD AMPLIFIER
VIDEO REC HEAD CONNECTION



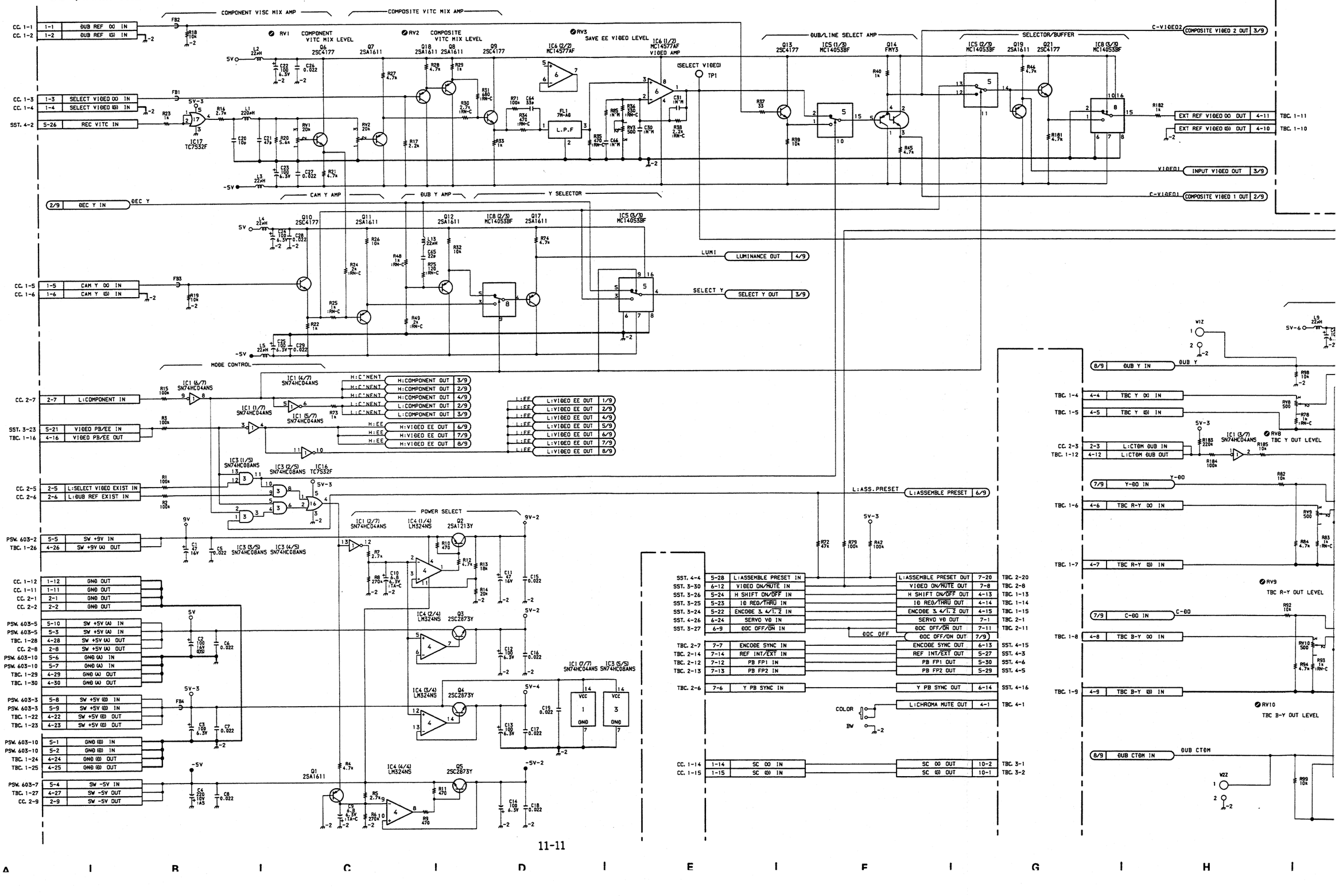
PA-119
1-638-708-11 (1)
BVW-50
BVW-50P

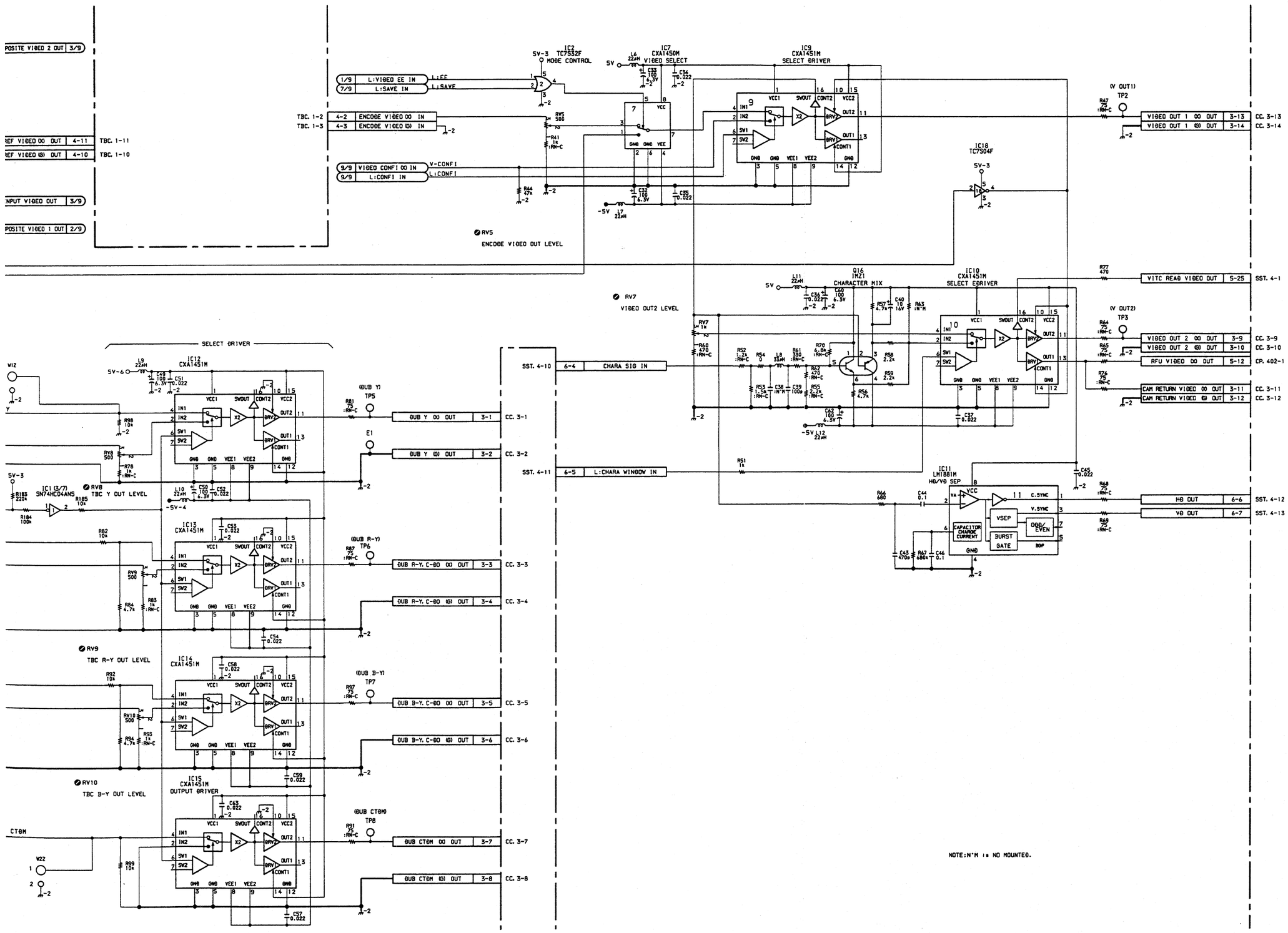
LD-39 ; VIDEO REC HEAD/PB RF CONNECTION DRUM FG/PG AMPLIFIER



LD-39
1-638-707-11 (1)
BVW-50
BVW-50P

VRP-1 (1/9); VIDEO INPUT SELECTOR
VIDEO OUTPUT DRIVER
DUB/COMPONENT OUTPUT DRIVER



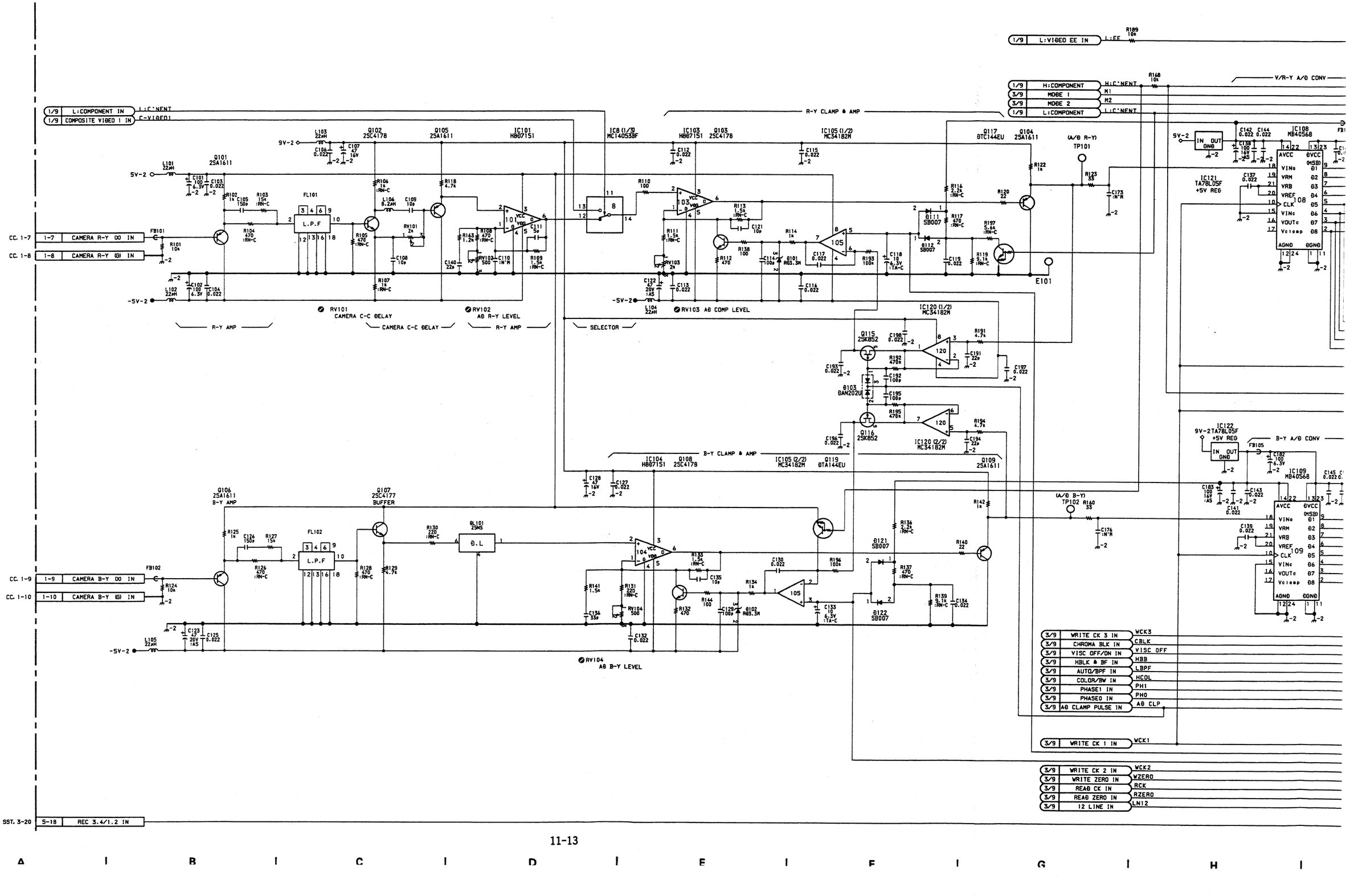


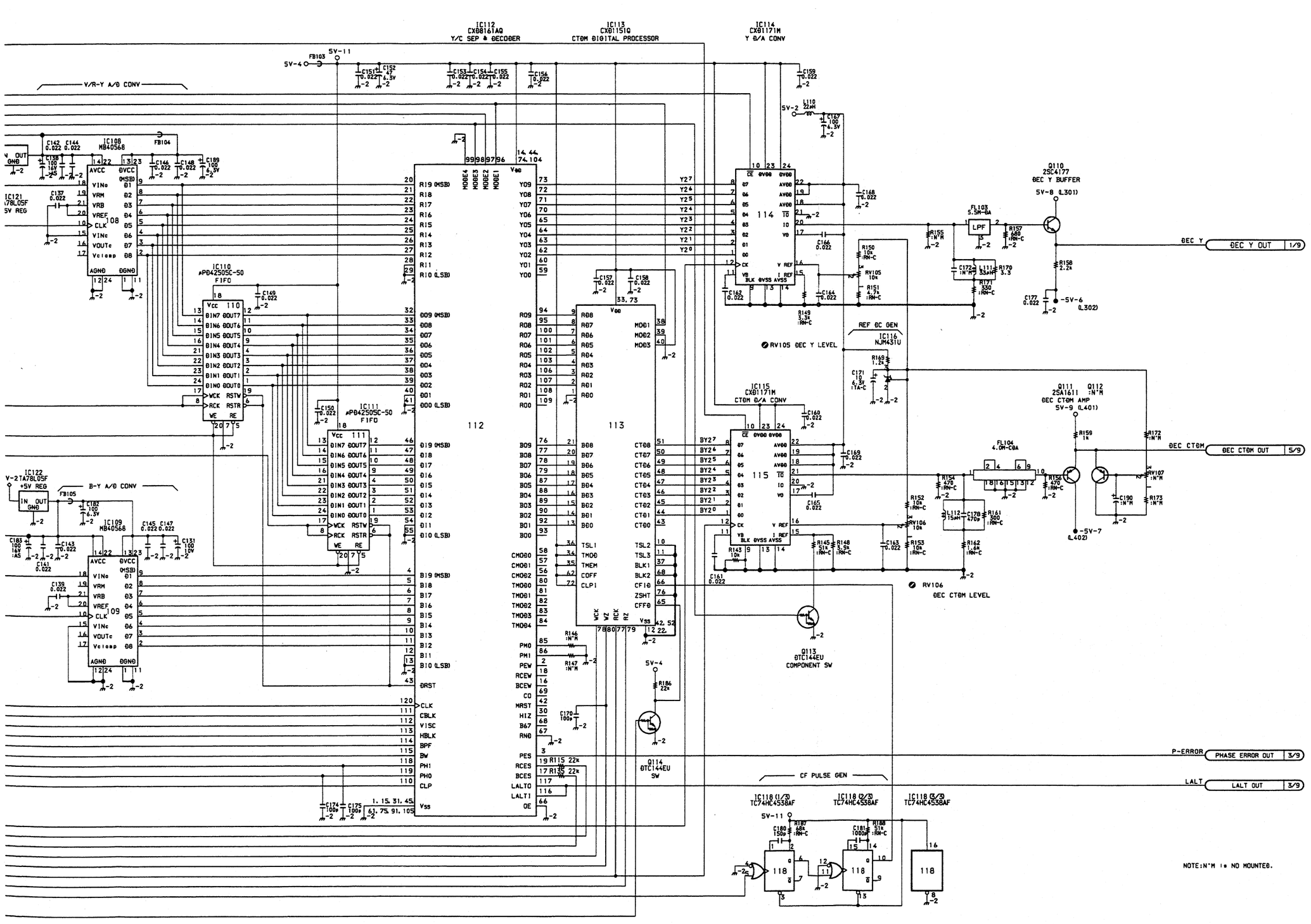
VRP-1 (1/9)

1-638-693-14 (1)
BVW-50P

11-11

VRP-1 (2/9); DIGITAL Y/C SEPARATOR DIGITAL CTDM PROCESSOR



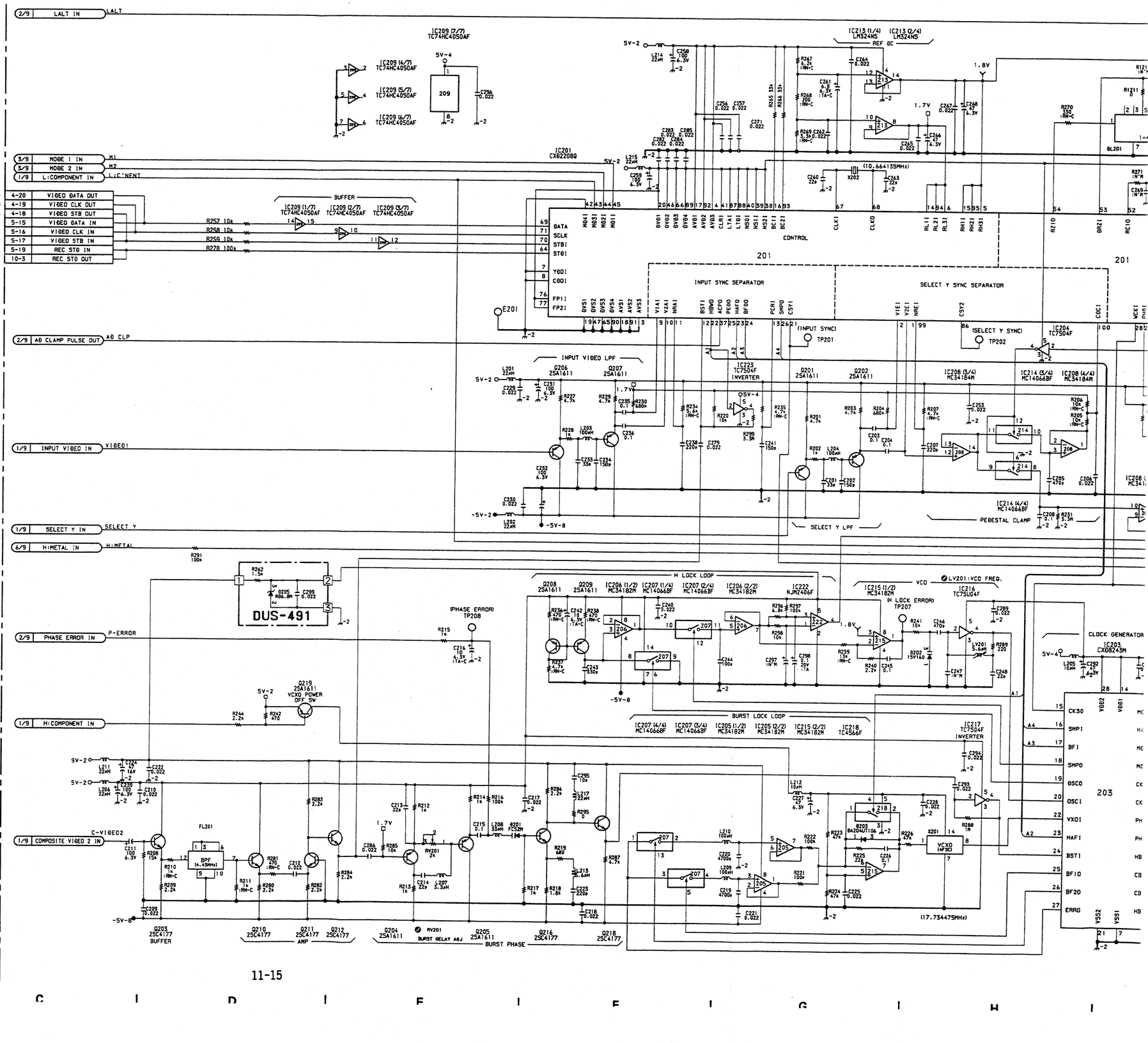


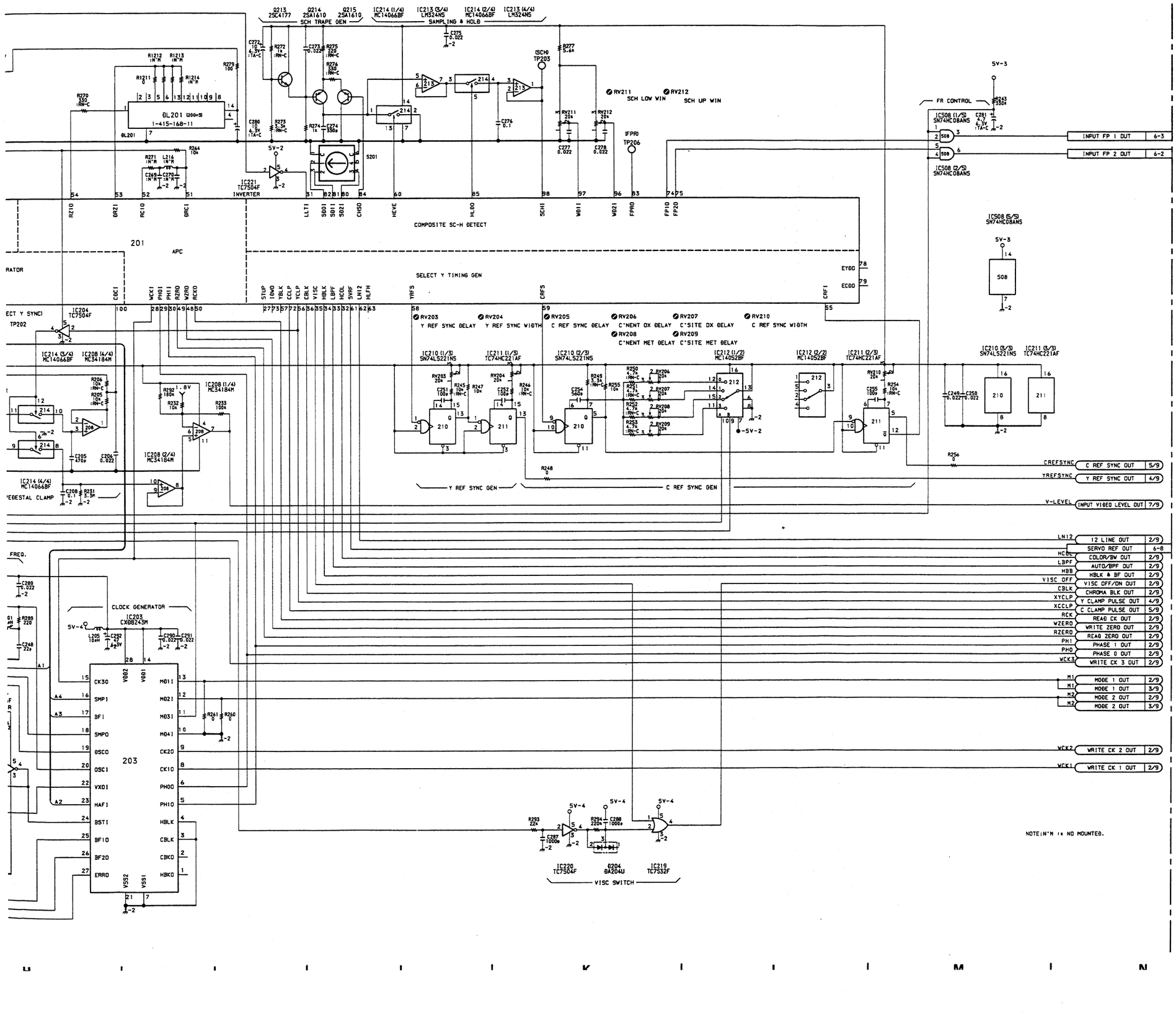
VRP-1 (2/9)

1-638-693-14 (1)
BVW-50P

11-13

VRP-1 (3/9); TIMING PULSE GENERATOR
DUS-491



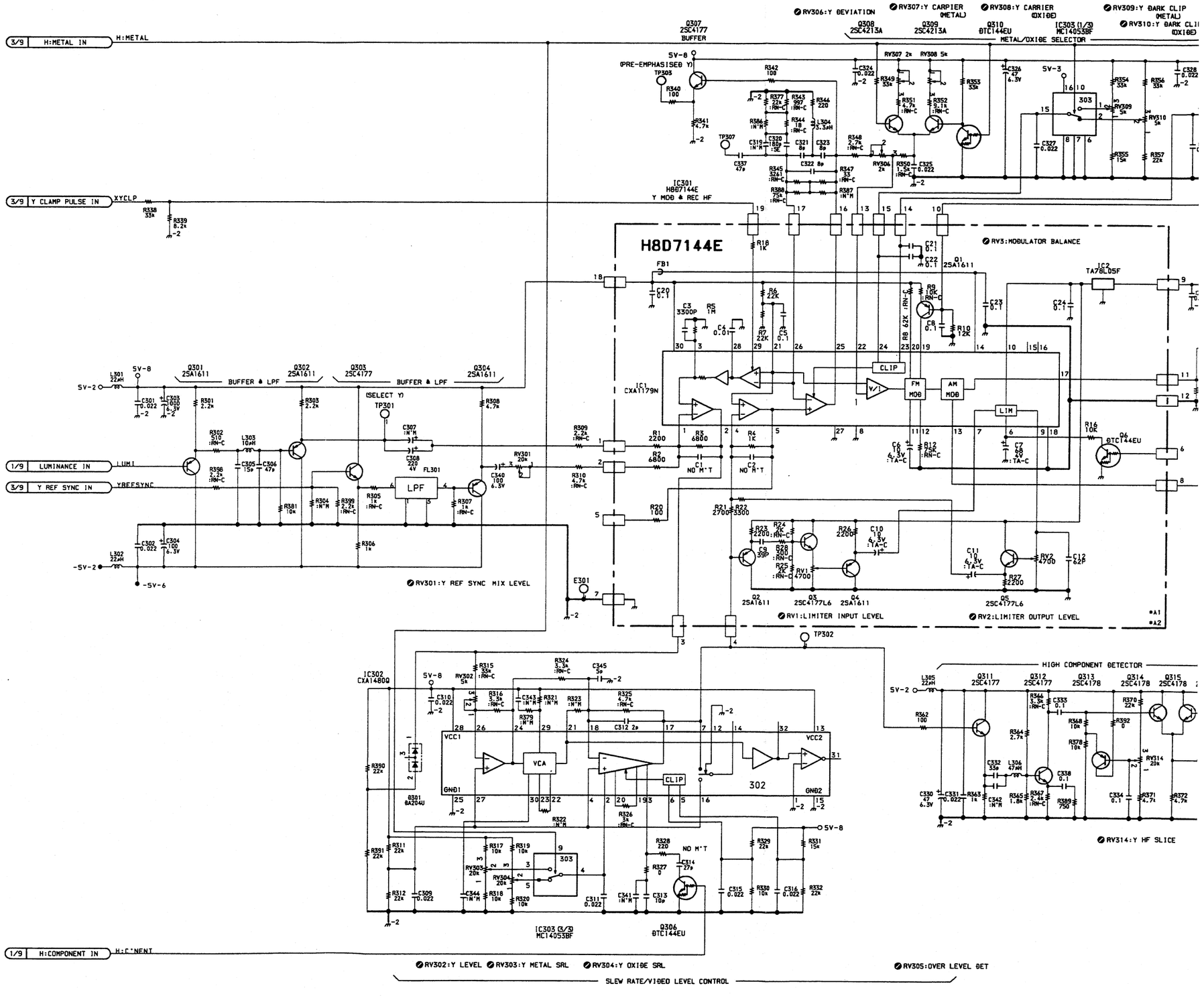


VRP-1 (3/9)

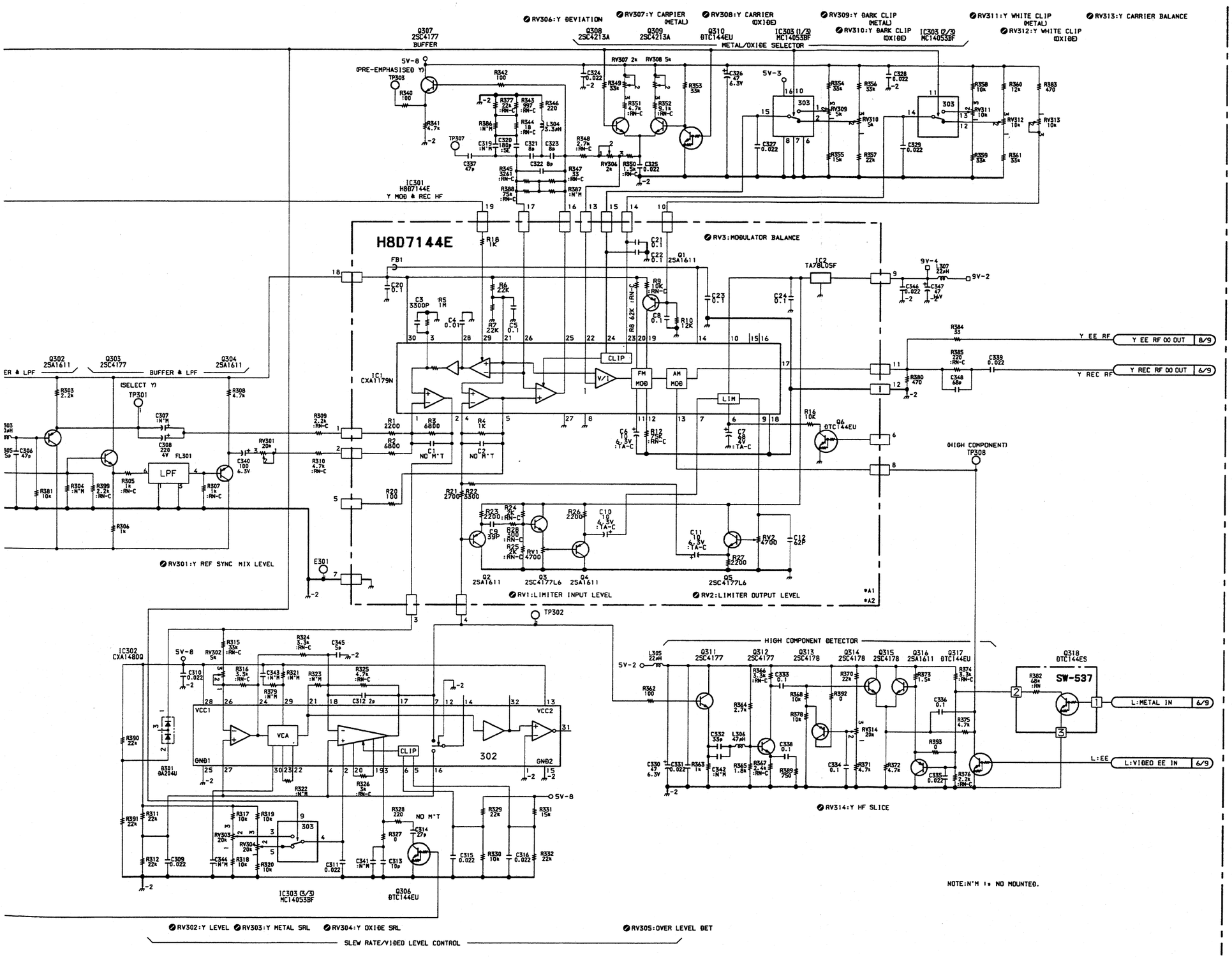
1-638-693-14 (1)
BVW-50P

VRP-1 (4/9); Y FM MODULATOR SLEW RATE LIMITER

SW-537



VRP-1 (4/9), SW-537

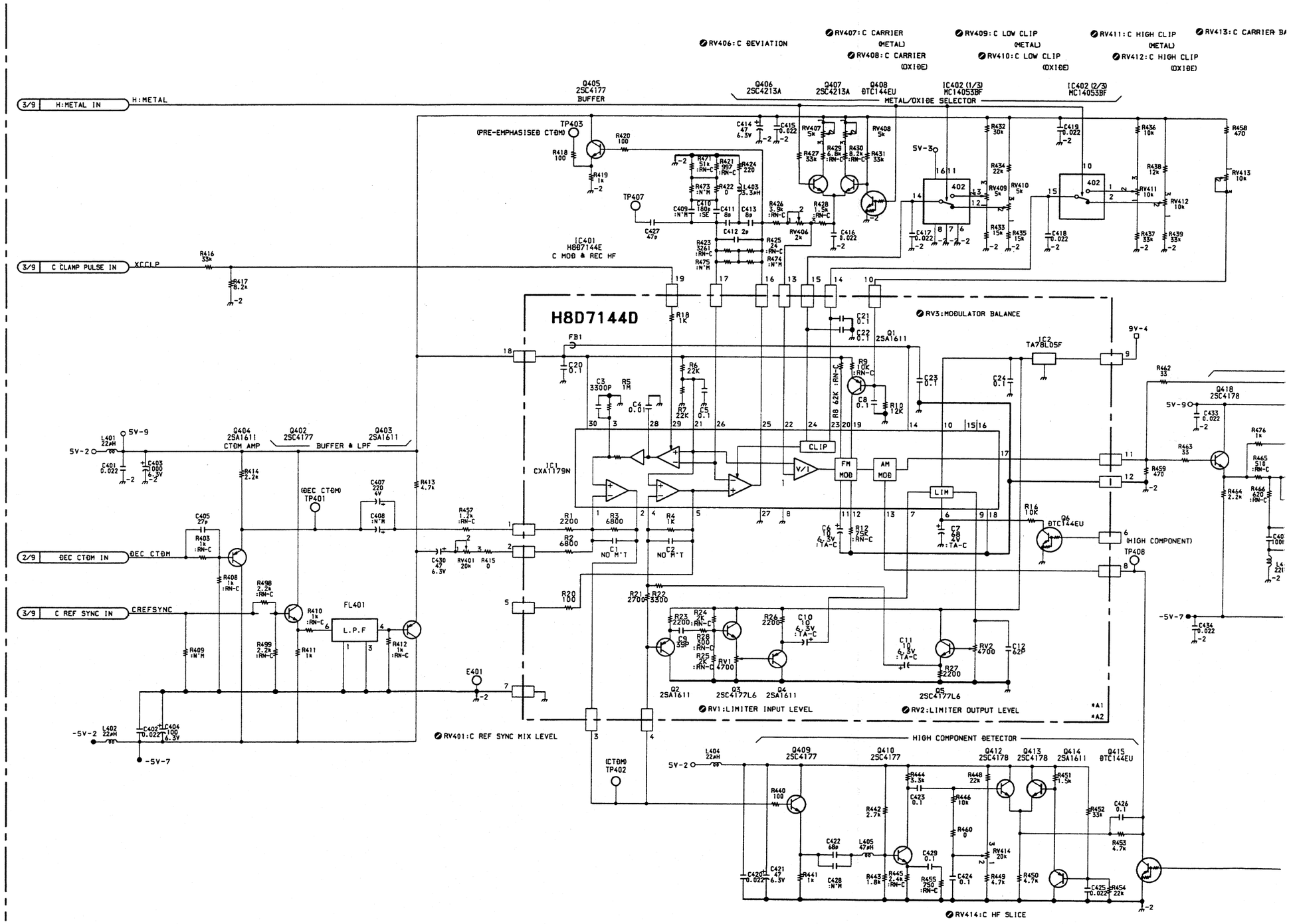


VRP-1 (4/9)

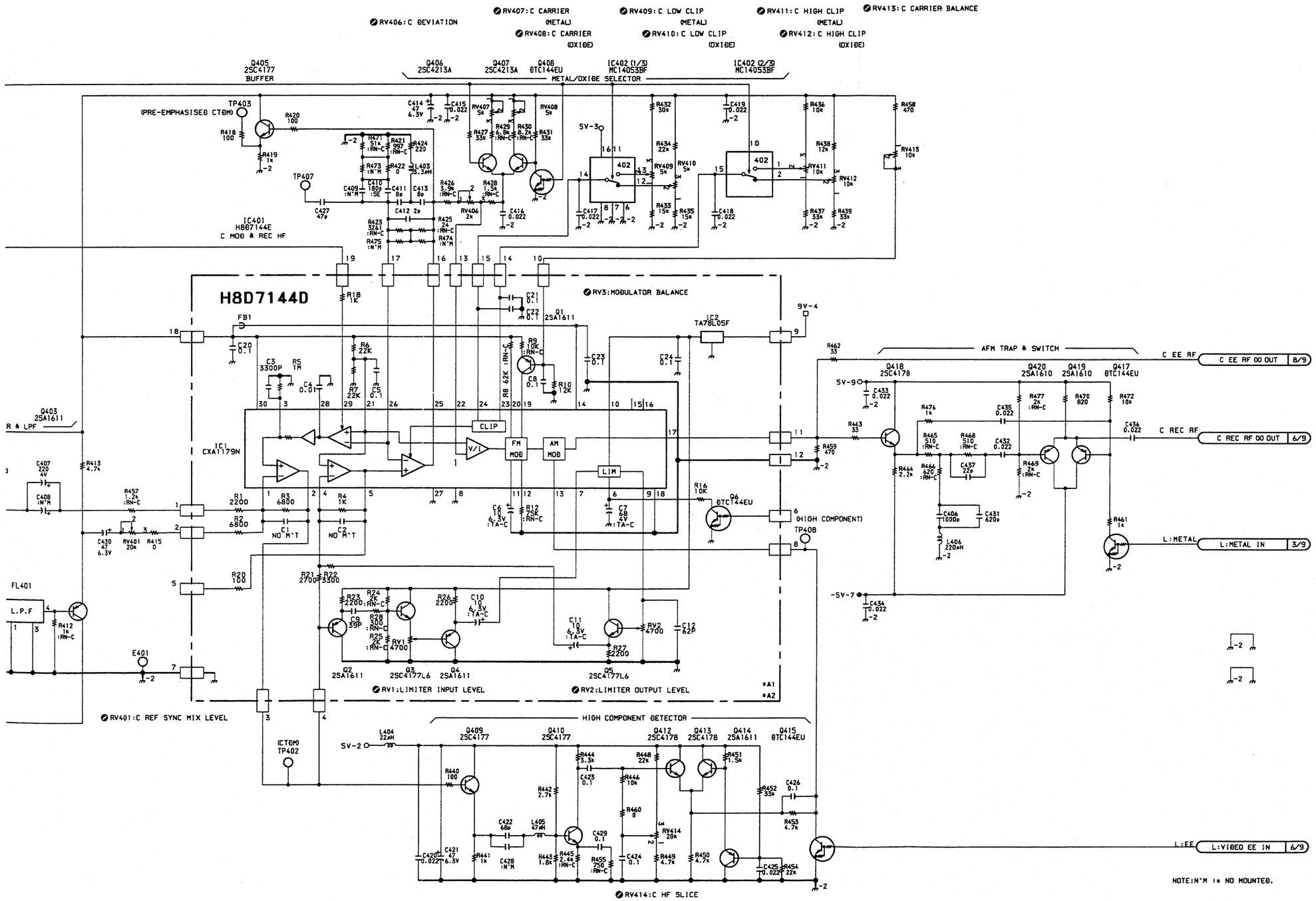
1-638-693-14 (1)
BVW-50P

11-17

VRP-1 (5/9); CHROMA FM MODULATOR



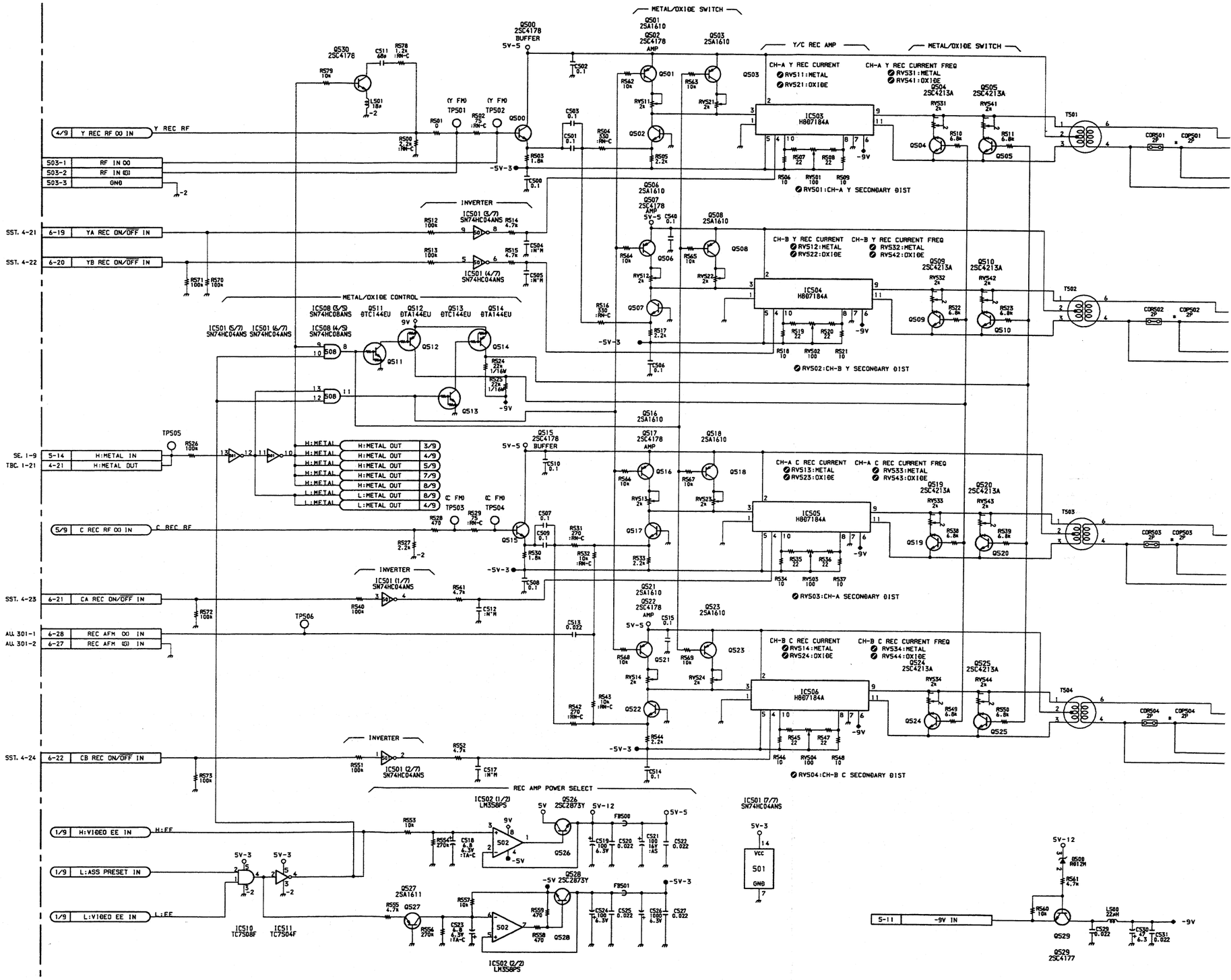
VRP-1 (5/9)



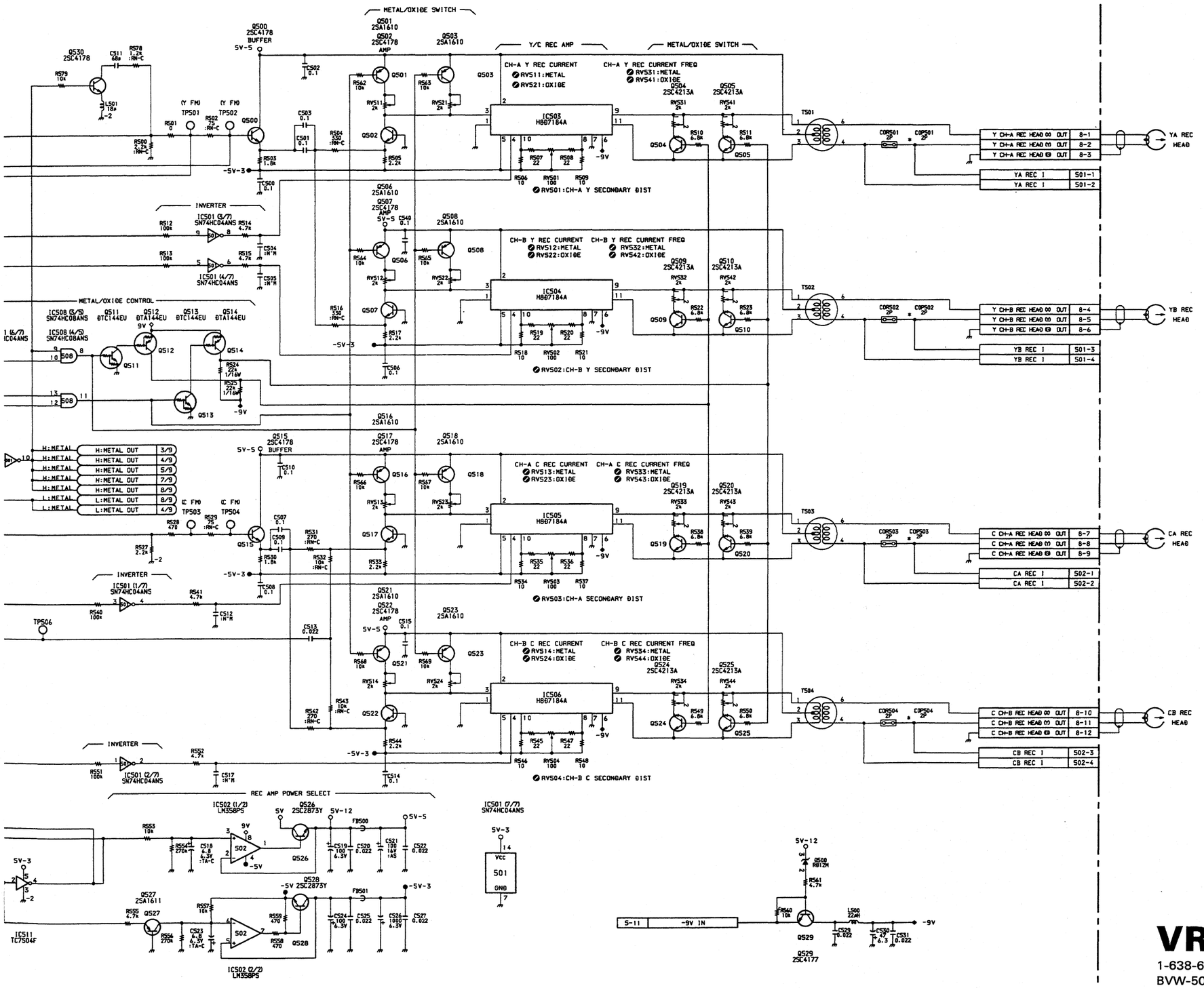
VRP-1 (5/9)

1-638-693-14 (1)
BVW-50P

VRP-1 (6/9); Y/C REC AMPLIFIER



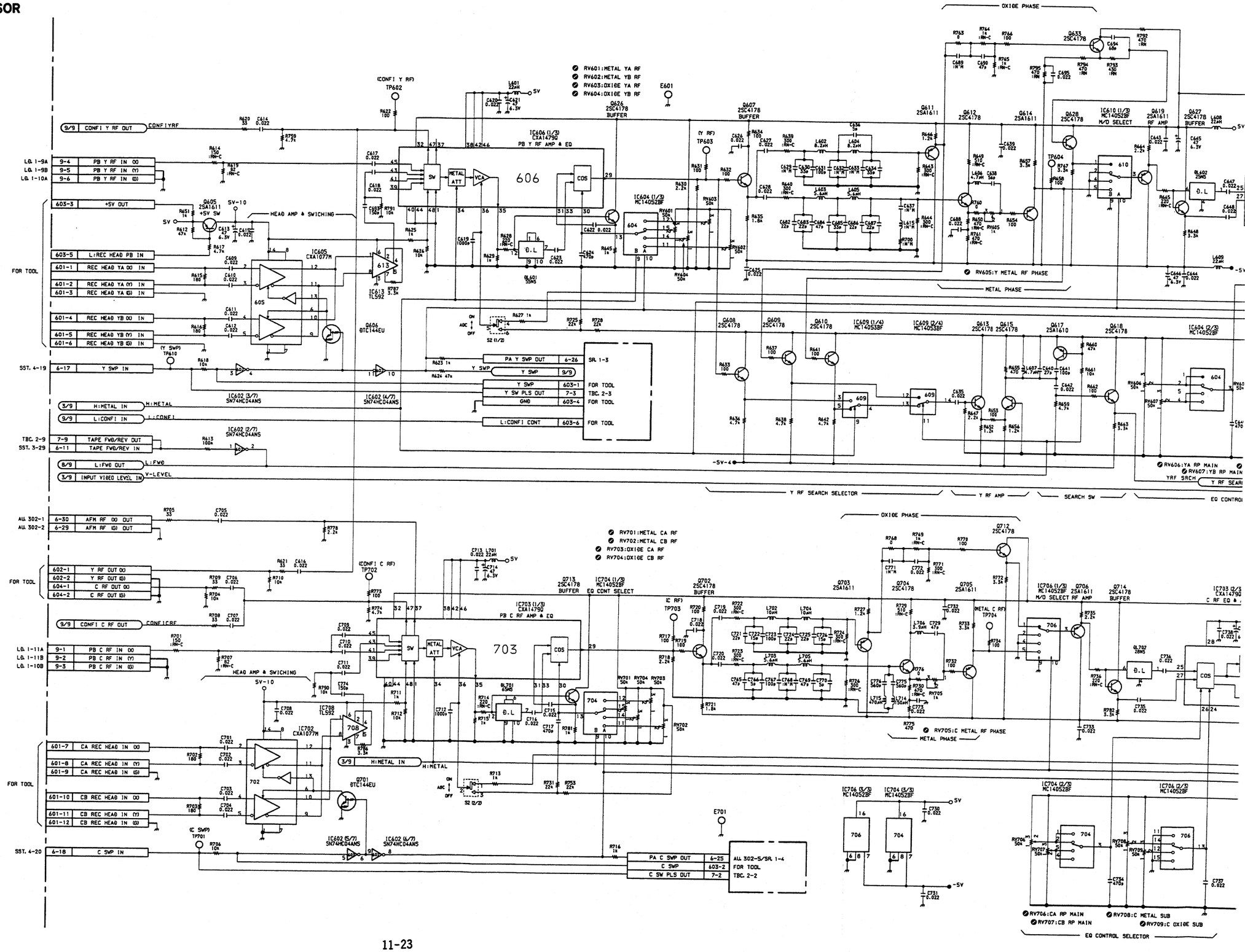
VRP-1 (6/9)

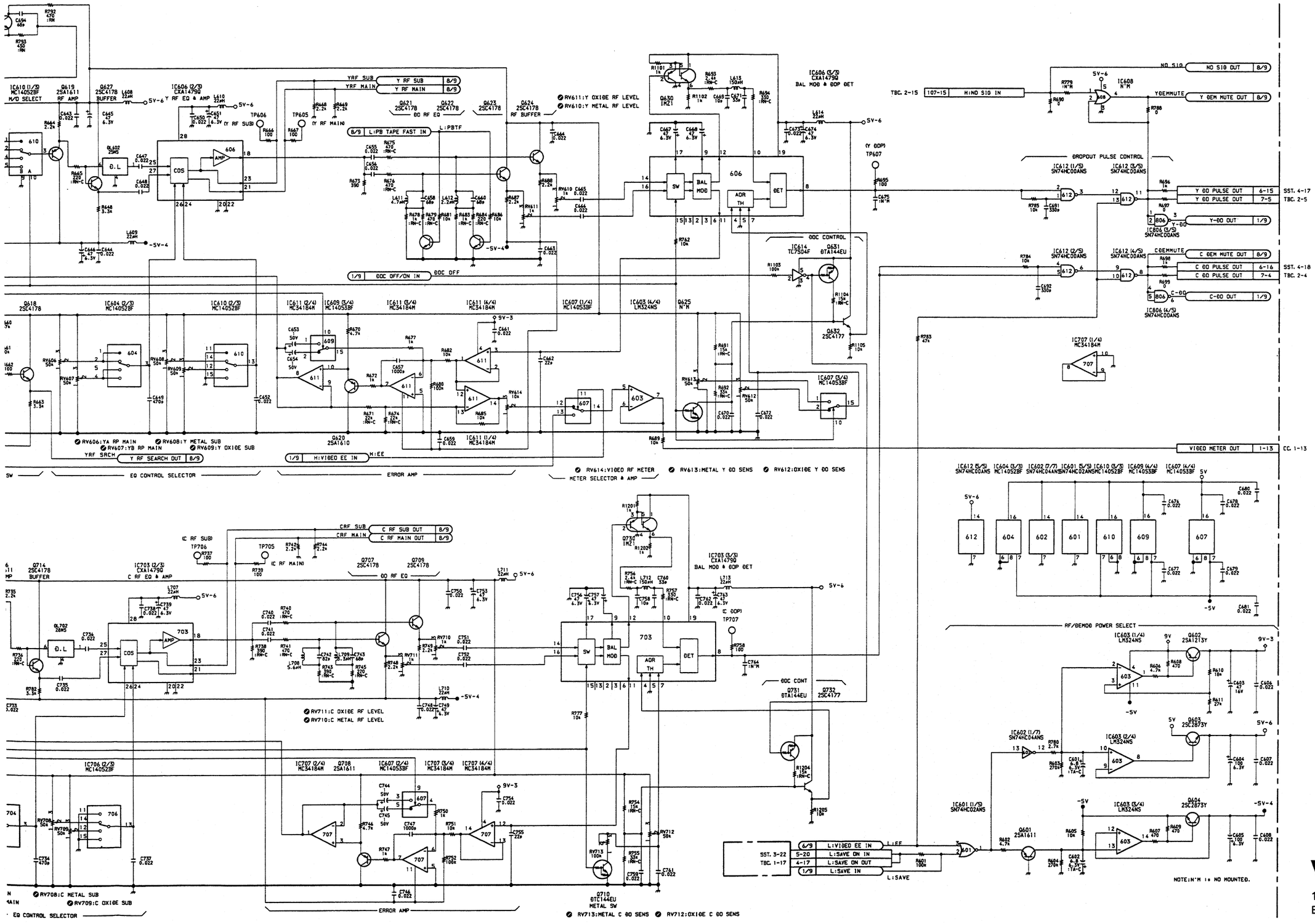


VRP-1 (6/9)

1-638-693-14 (1)
BVW-50P

VRP-1 (7/9) ; PB Y/C RF PROCESSOR



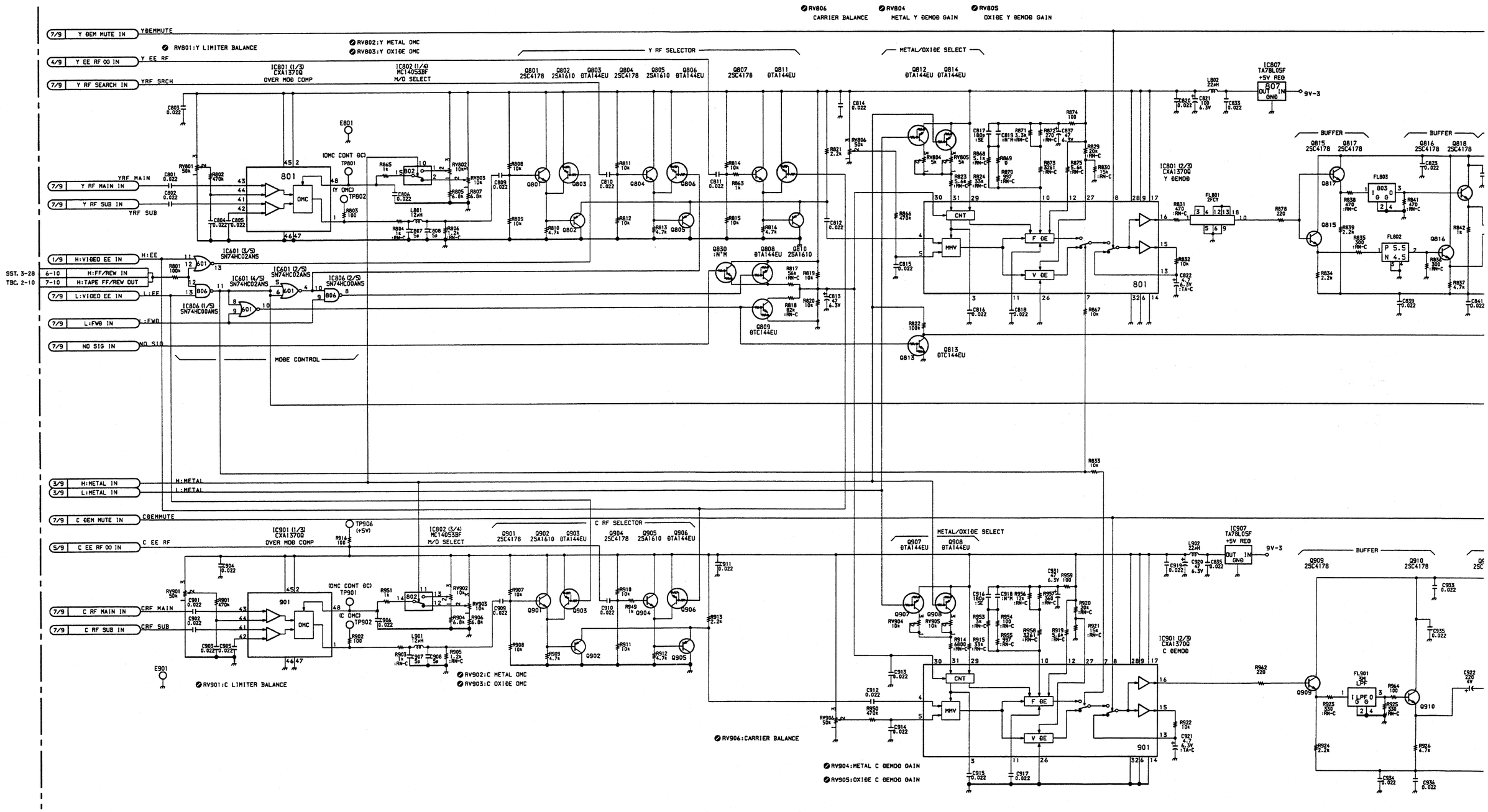


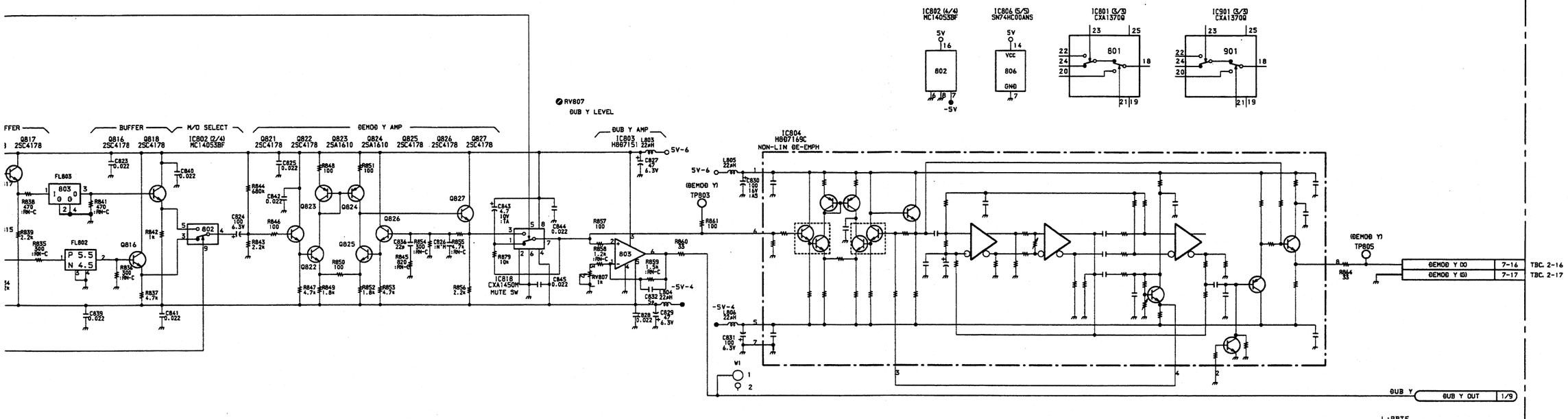
VRP-1 (7/9)

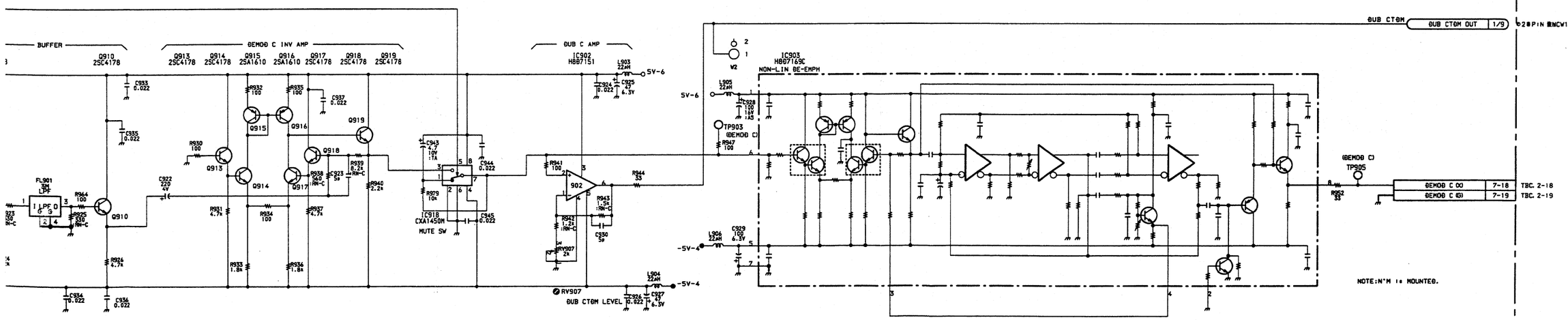
1-638-693-14 (1)
BVW-50P

11-23

VRP-1 (8/9); Y/C DEMODULATOR





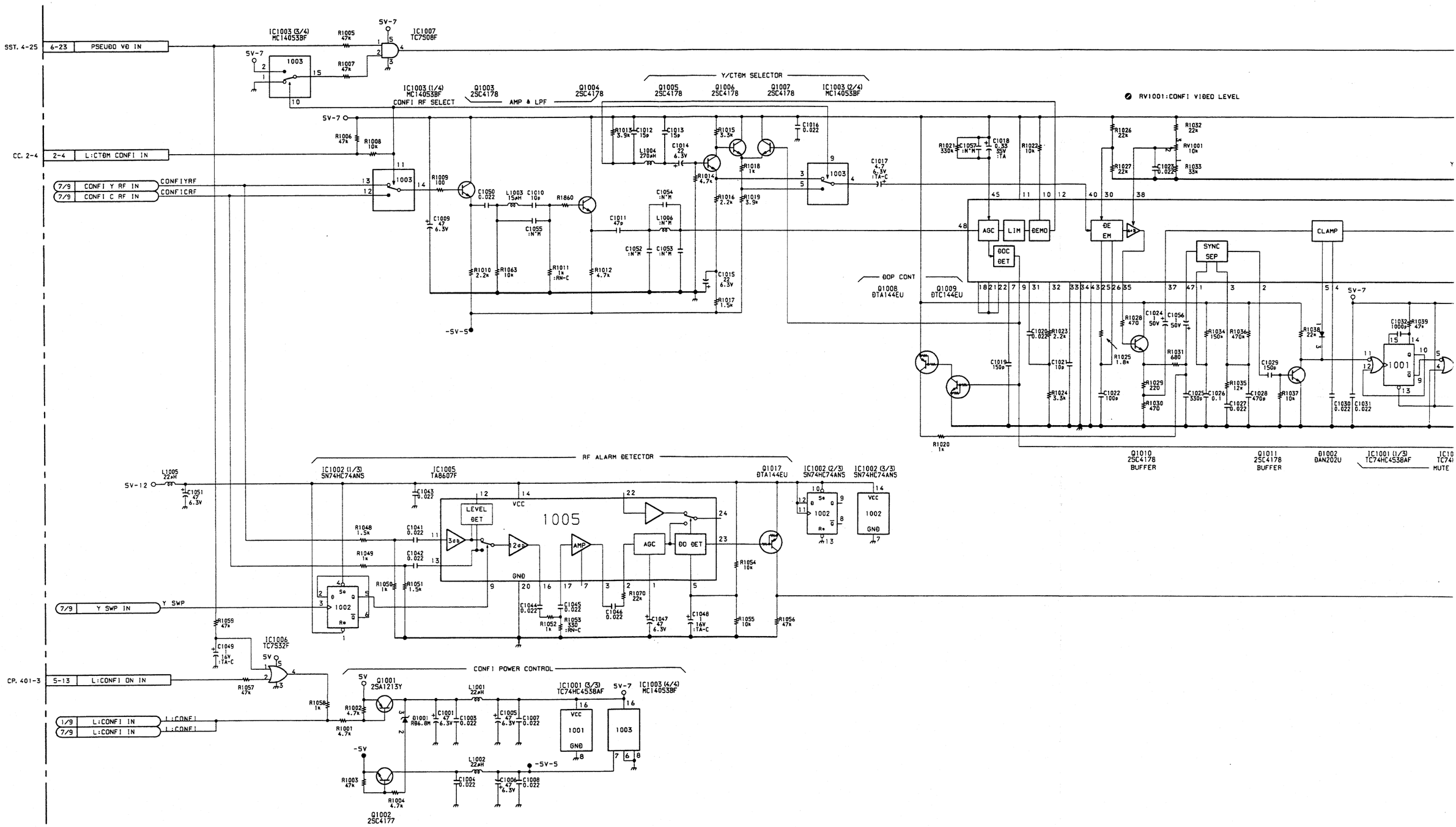


VRP-1 (8/9)

1-638-693-14 (1)
BVW-50P

11-25

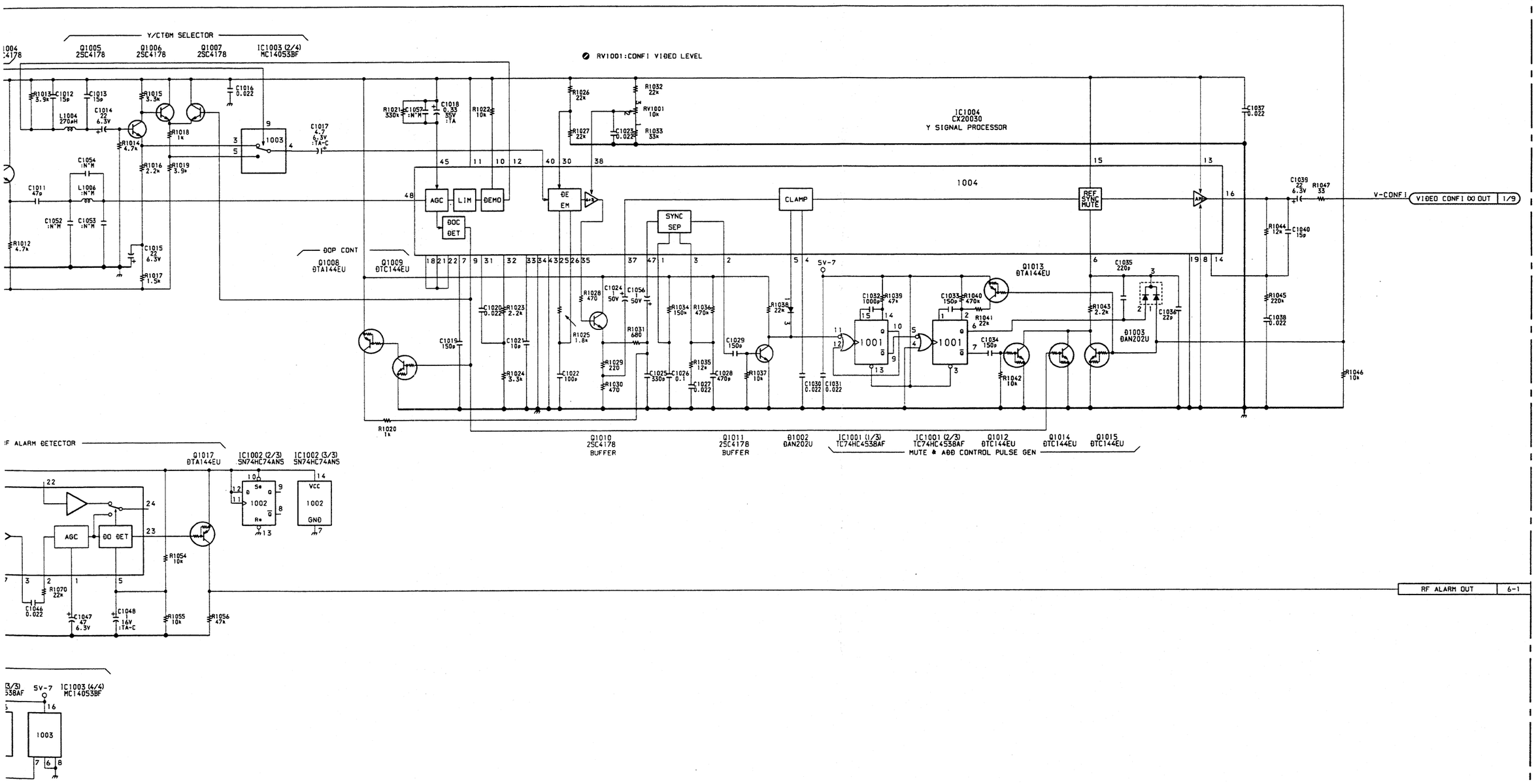
VRP-1 (9/9); VIDEO CONFI
RF ALARM DETECTOR



11-27

A | B | C | D | E | F | G | H

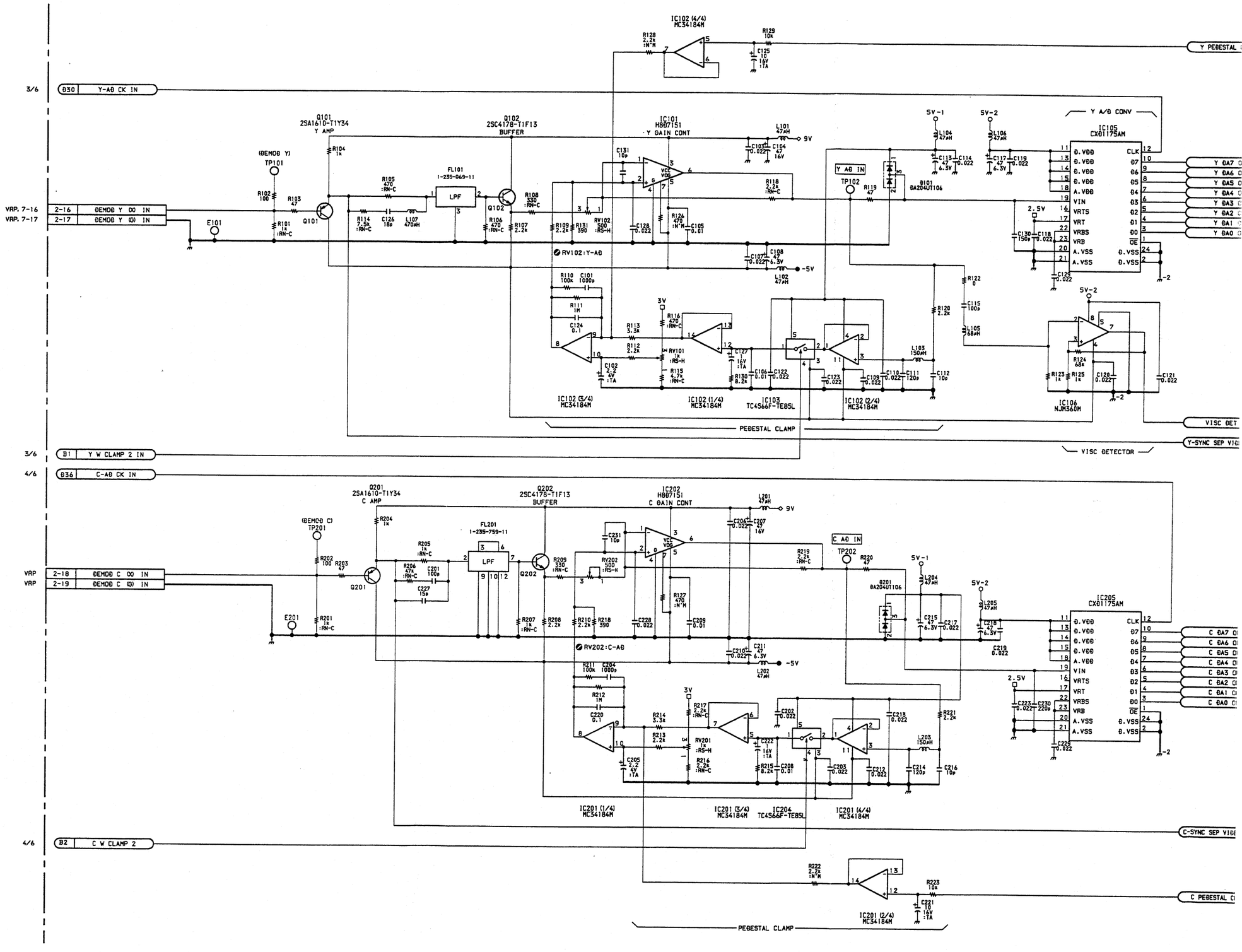
VRP-1 (9/9)



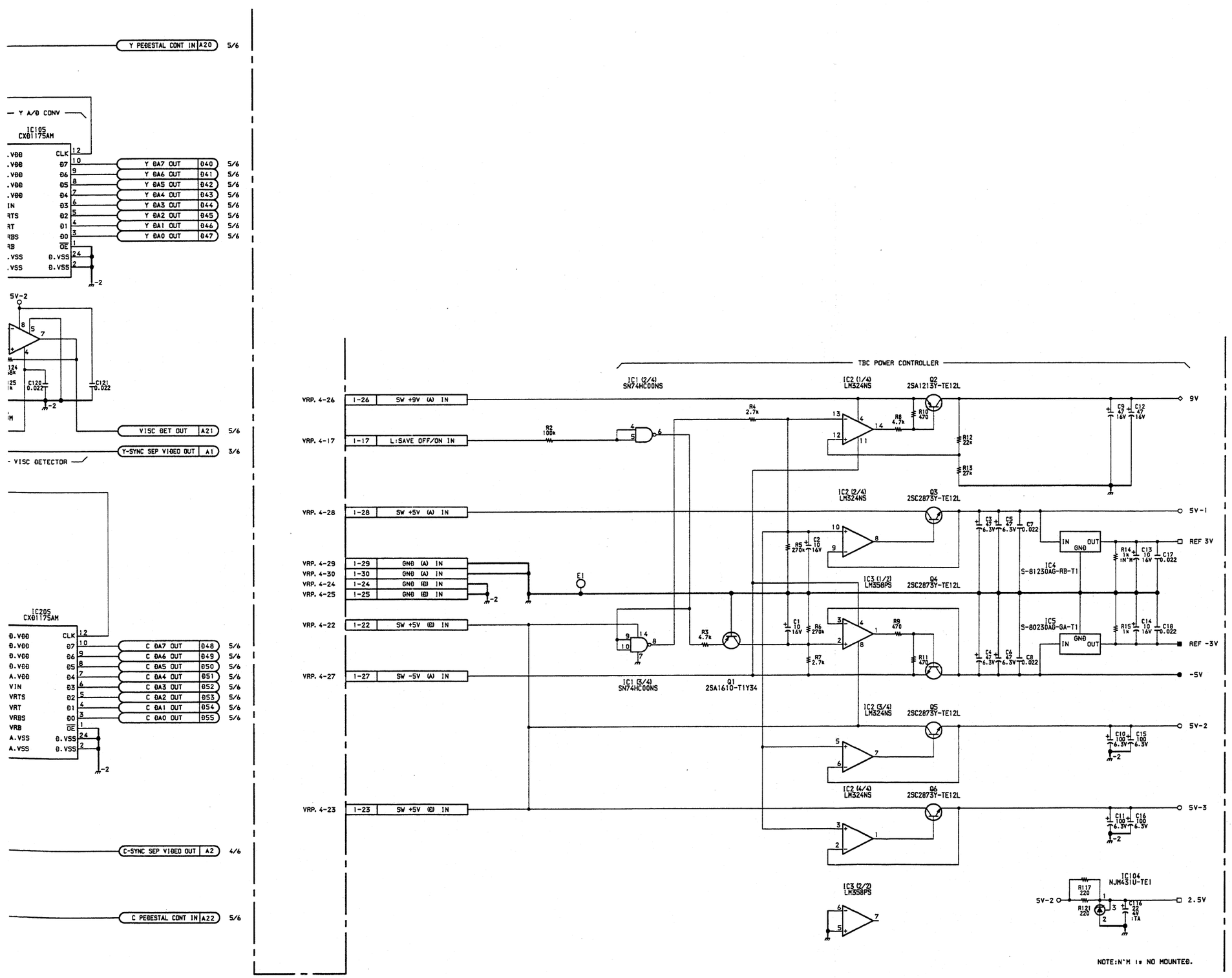
VRP-1 (9/9)

1-638-693-14 (1)
BVW-50P

TBC-19 (1/6); A/D CONVERTER



A | B | C | D | E | F | G | H |

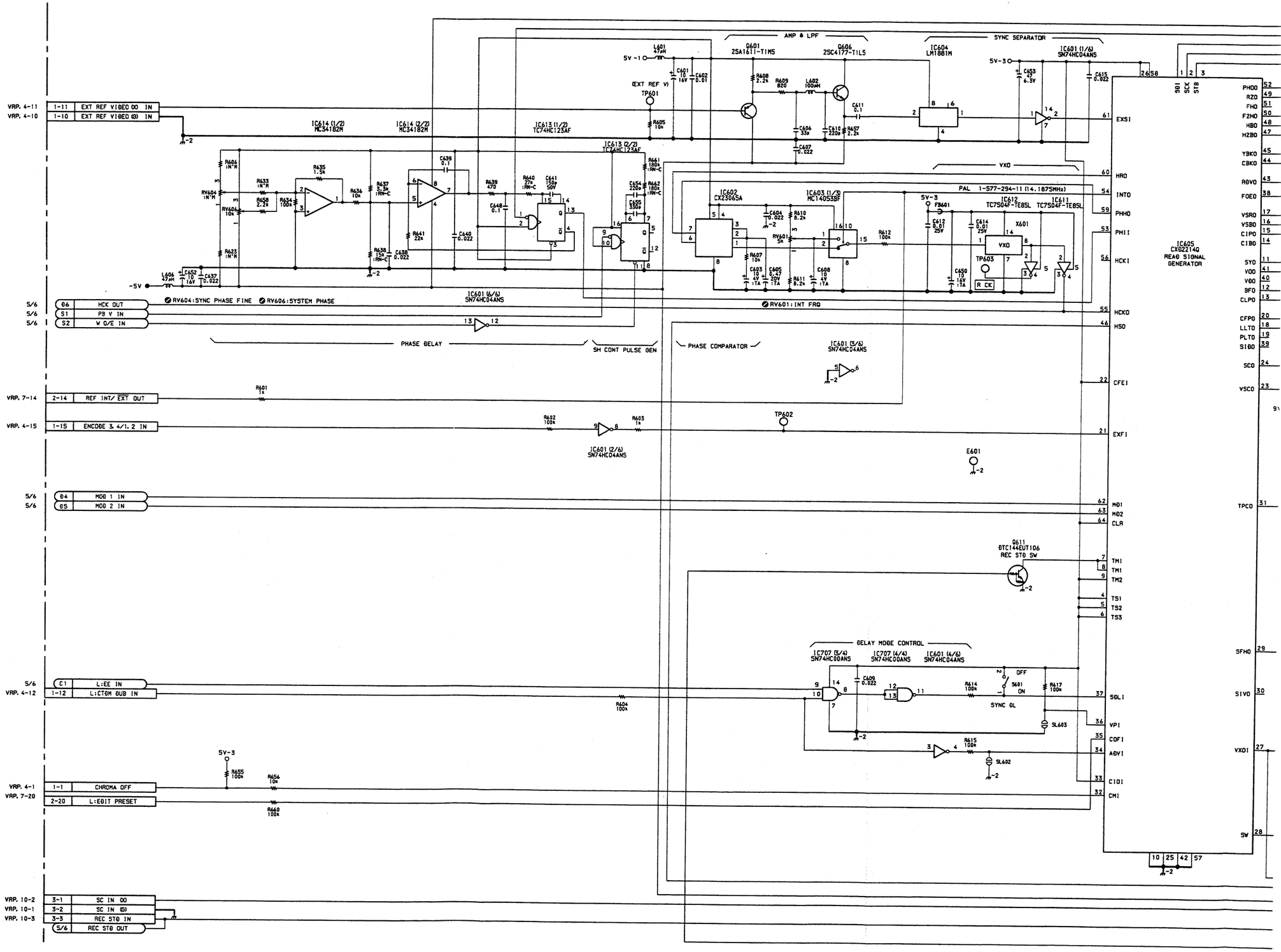


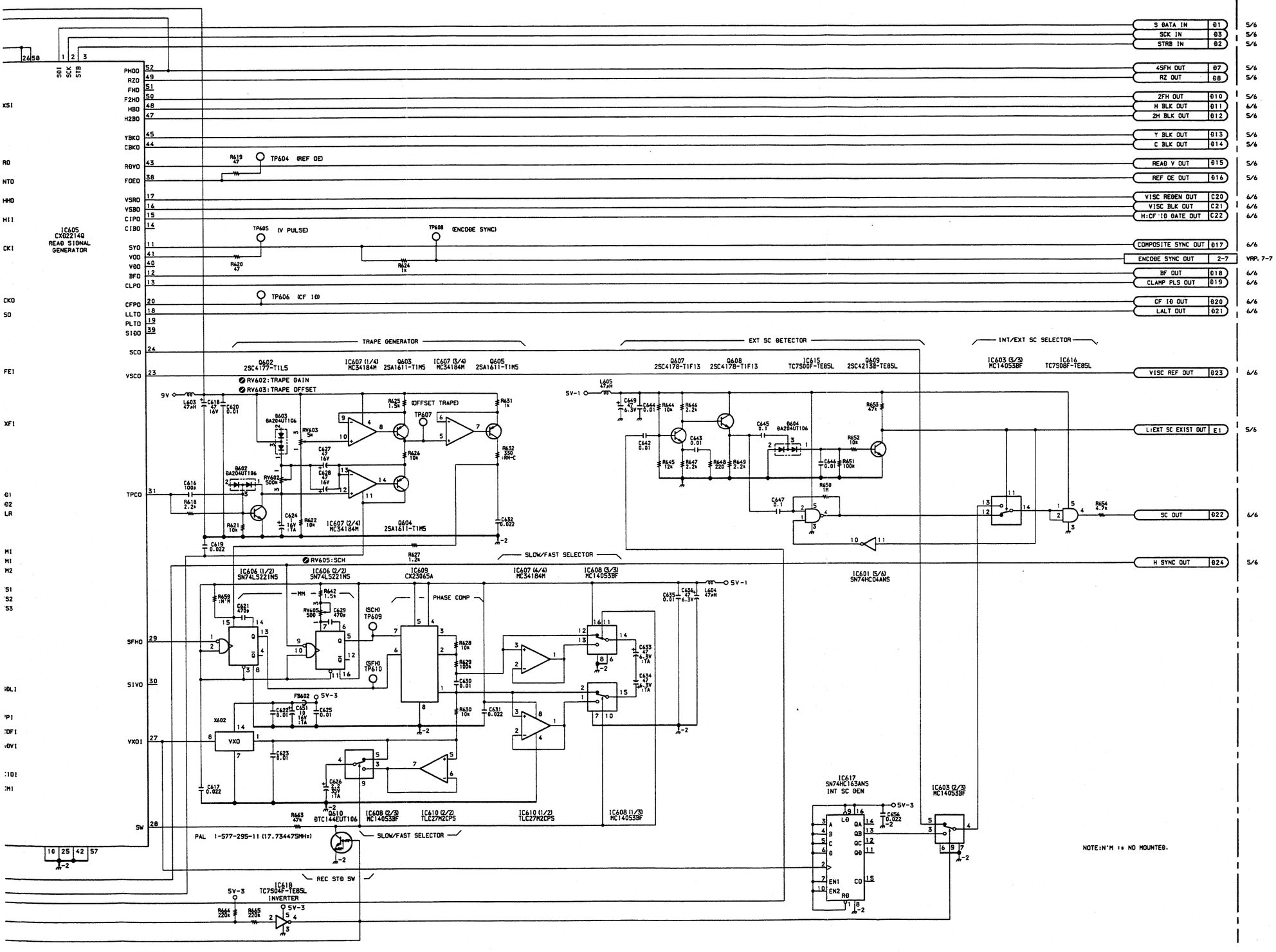
TBC-19 (1/6)

1-638-691-14 (1)
BVW-50P

11-29

TBC-19 (2/6); READ SIGNAL GENERATOR

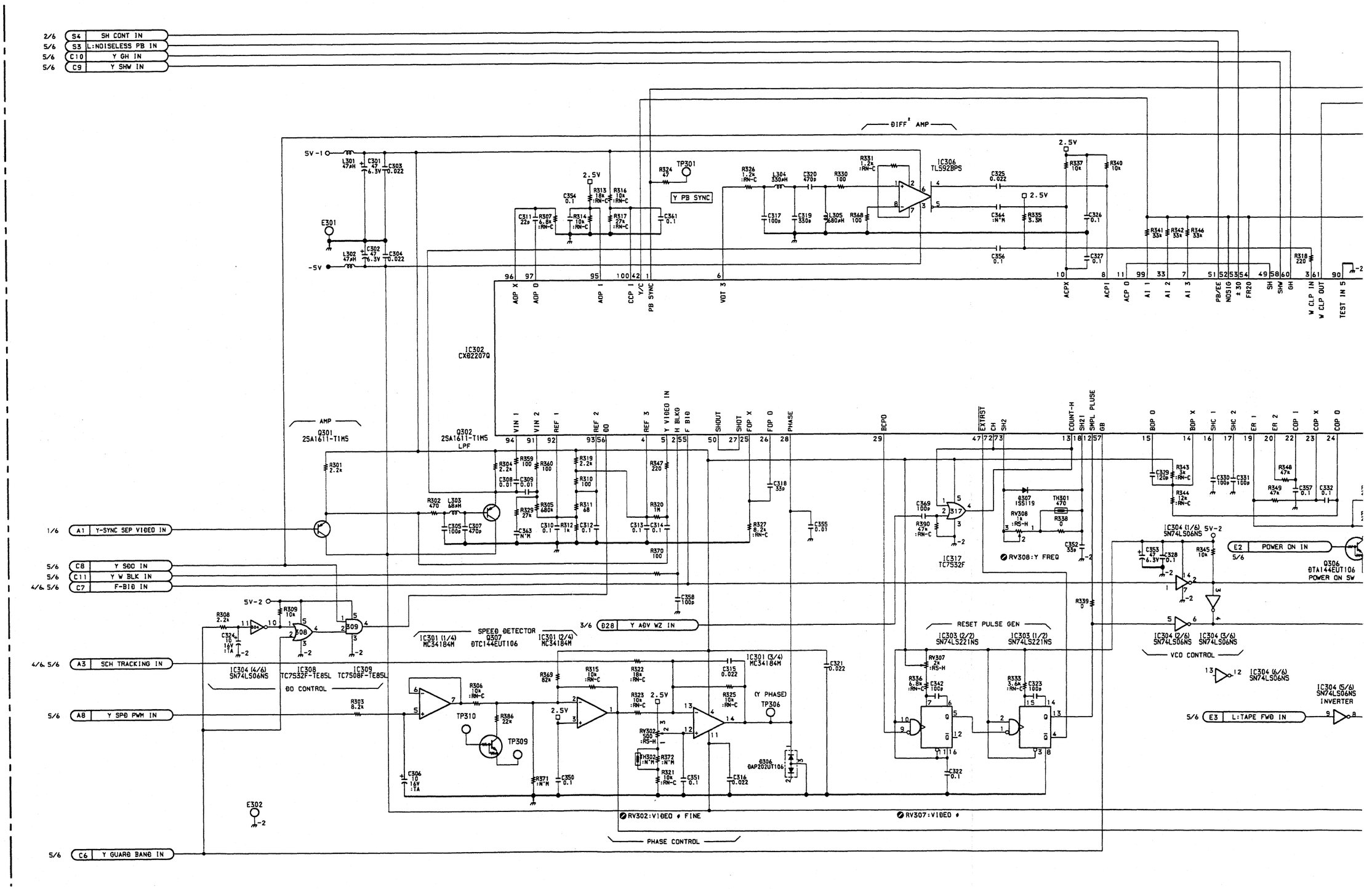


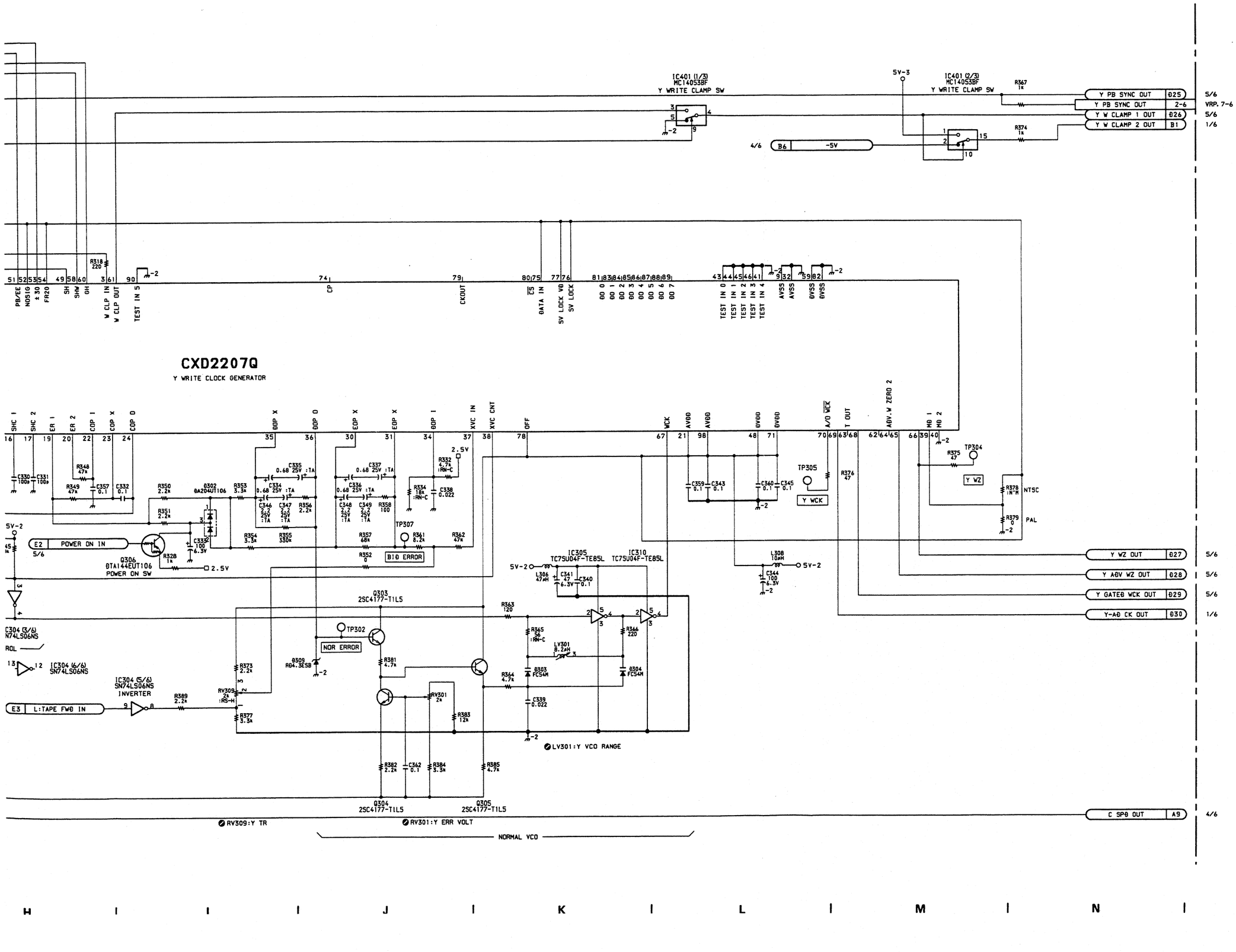


TBC-19 (2/6)

1-638-691-14 (1)
BVW-50P

TBC-19 (3/6); Y WRITE CLOCK GENERATOR



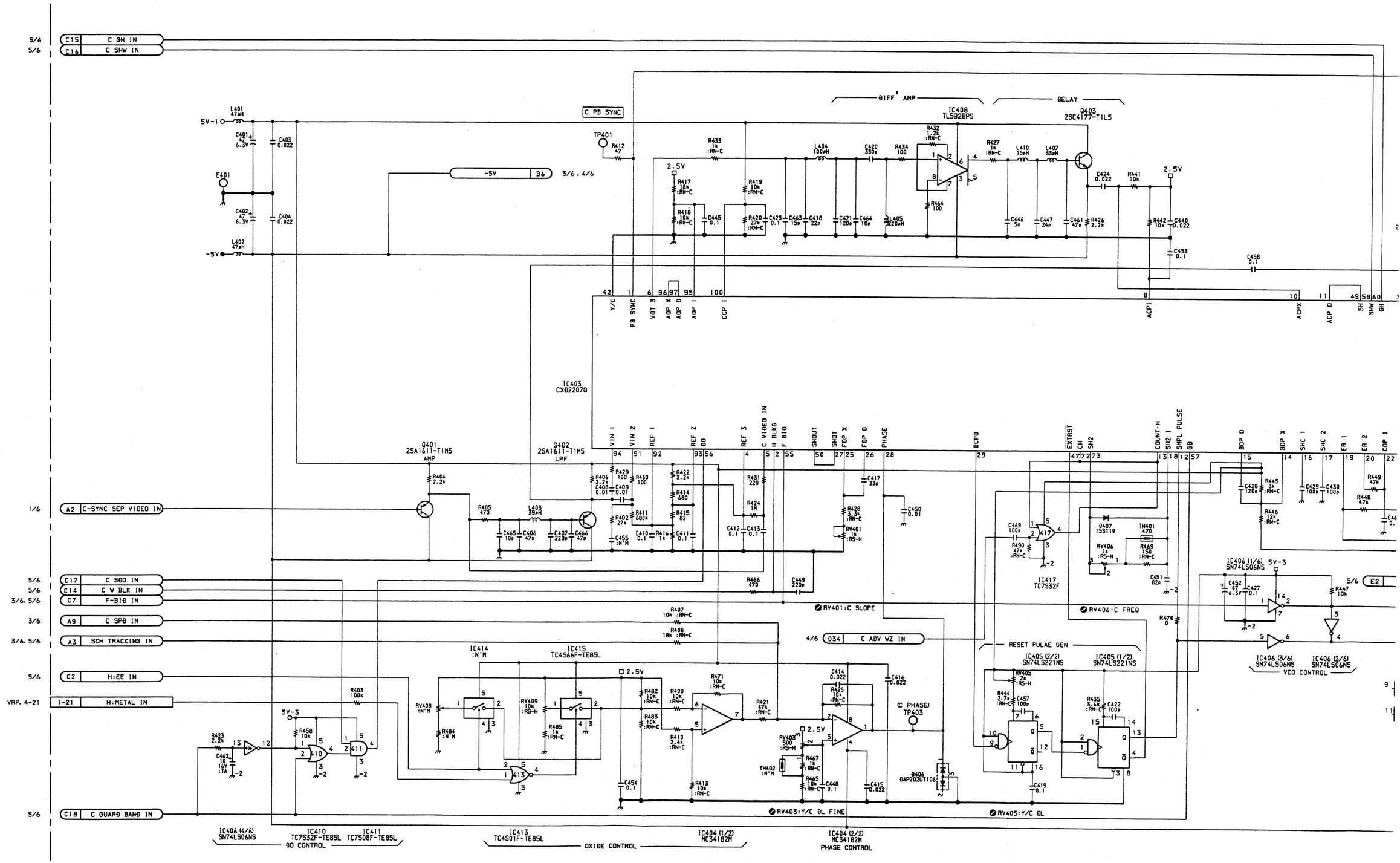


TBC-19 (3/6)

1-638-691-14 (1)
BVW-50P

11-33

TBC-19 (4/6); CHROMA WRITE CLOCK GENERATOR



A | B | C | D | E | F | G | H

49

IC401 (3/3)
MC14053BF
C WRITE CLAMP SW

C PB SYNC | B31 | 5/6

5V-3

C405 0.022

R473 1k

4/6 B6 -5V

C W CLAMP 2 | B2 | 1/6

C W CLAMP 1 | B32 | 5/6

2.5V

C458 0.1

R443 3.3M

R459 220

R452 33k R453 33k R454 33k

10 ACPX | 11 ACP 0 | 49 SH | 58 SHM | 60 SHH | 3 W CLP IN | 61 W CLP OUT | 90 TEST IN 5 | 99 AI 1 | 33 AI 2 | 7 AI 3 | 51 PB/EE | 52 NOS10 | 53 ±30 | 54 FR20 | 74 CP | 79 CKOUT | 80 CS | 75 DATA IN | 77 5V LOCK VO | 76 5V LOCK | 81 DO 0 | 83 DO 1 | 84 DO 2 | 85 DO 3 | 86 DO 4 | 87 DO 5 | 88 DO 6 | 89 DO 7 | 43 TEST IN 0 | 44 TEST IN 1 | 45 TEST IN 2 | 46 TEST IN 3 | 41 TEST IN 4 | 9 AVSS | 32 AVSS | 59 DVSS | 82 DVSS

CXD2207Q

C WRITE CLOCK GENERATOR

BUP U | BOP X | SHC 1 | SHC 2 | ER 1 | ER 2 | COP I | COP X | COP O | DOP X | DOP O | EOP X | EOP O | DOP I | XVC IN | XVC CNT | OFF | WCK | AVDD | AVDD | DVDD | DVDD | A/D WCK | T OUT | ADV.W ZERO 2 | HD 1 | HD 2

15 | 14 | 16 | 17 | 19 | 20 | 22 | 23 | 24 | 35 | 36 | 30 | 31 | 34 | 37 | 38 | 78 | 67 | 21 | 98 | 48 | 71 | 70 | 69 | 63 | 68 | 62 | 64 | 65 | 66 | 39 | 40

C428 120p

R445 3k :RN-C

R446 12k :RN-C

C429 100p C430 100p

R448 47k

R449 47k

C431 0.1

C467 0.1

R450 2.2k

D402 0A2044UT106

R455 3.3k

C433 0.68 25V :TA

C434 0.68 25V :TA

C443 2.2 25V :TA

C444 2.2 25V :TA

R457 2.2k

R456 330k

R451 2.2k

C432 100 6.3V

R401 1k

Q407 DTA144EUT106 POWER ON SW

R491 47k

R472 68k

R475 22k

R481 68k

R468 4.7k :RN-C

R474 18k :RN-C

C435 0.022

2.5V

TP405

R477 47

C439 0.1 C459 0.1

C460 0.1 C442 0.1

C 0K

L408 10mH

5V-3

C441 100 6.3V

R476 47

C WZ TP404

R478 :N'M

NTSC

R479 0

PAL

06 (1/6) 5V-3
4LS06NS

C427 0.1

R447 10k

5/6 E2 POWER ON IN

IC406 (3/6) SN74LS06NS
IC406 (2/6) SN74LS06NS
VCO CONTROL

IC406 (6/6) SN74LS06NS

IC406 (5/6) SN74LS06NS

IC407 TC7SU04F-TE85L

IC412 TC7SU04F-TE85L

5V-3

L406 47mH

C438 47 6.3V

C436 0.1

Q404 2SC4177-T1L5

Q405 2SC4177-T1L5

Q406 2SC4177-T1L5

R460 120

(NOR ERR) TP402

R462 56 :RN-C

R463 220

LV401 8.2mH

D403 FCS4M

D404 FCS4M

R436 4.7k

R461 4.7k

RV404 2k

R438 12k

C437 0.022

R437 2.2k

C425 0.1

R439 3.3k

R440 4.7k

LV401:C VCO RANGE

RV404:C ERR VOLT

NORMAL VCO

E402

C WZ | B33 | 5/6

C ABV WZ | B34 | 5/6

C GATE0 WCK | B35 | 5/6

C-A0 CK | B36 | 1/6

PHASE SHIFT

IC416 SN74HC164NS

C448 0.022

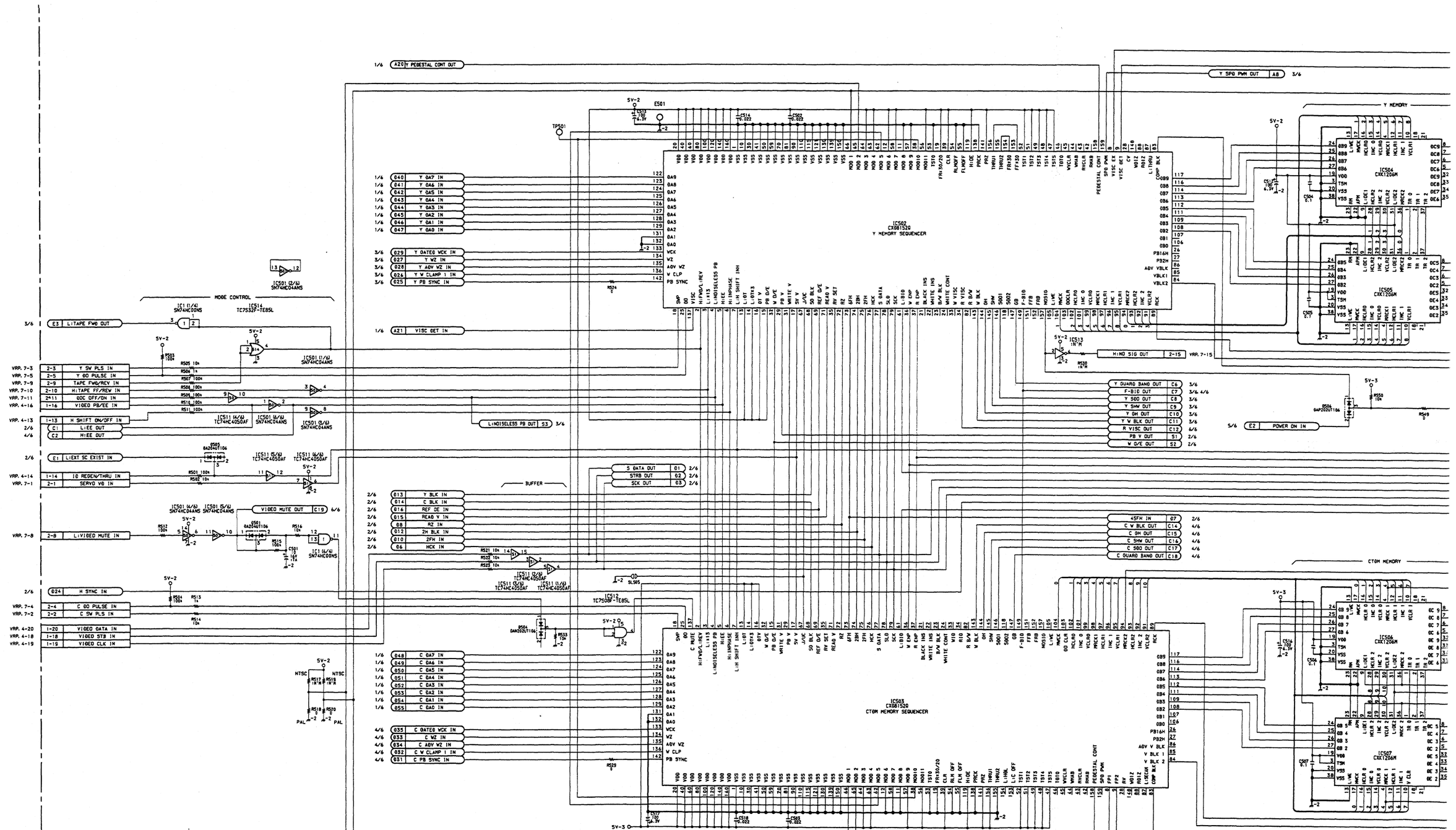
1A 2B Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 R0

NOTE:N'M is NO MOUNTED.

TBC-19 (4/6)

1-638-691-14 (1)
BVW-50P

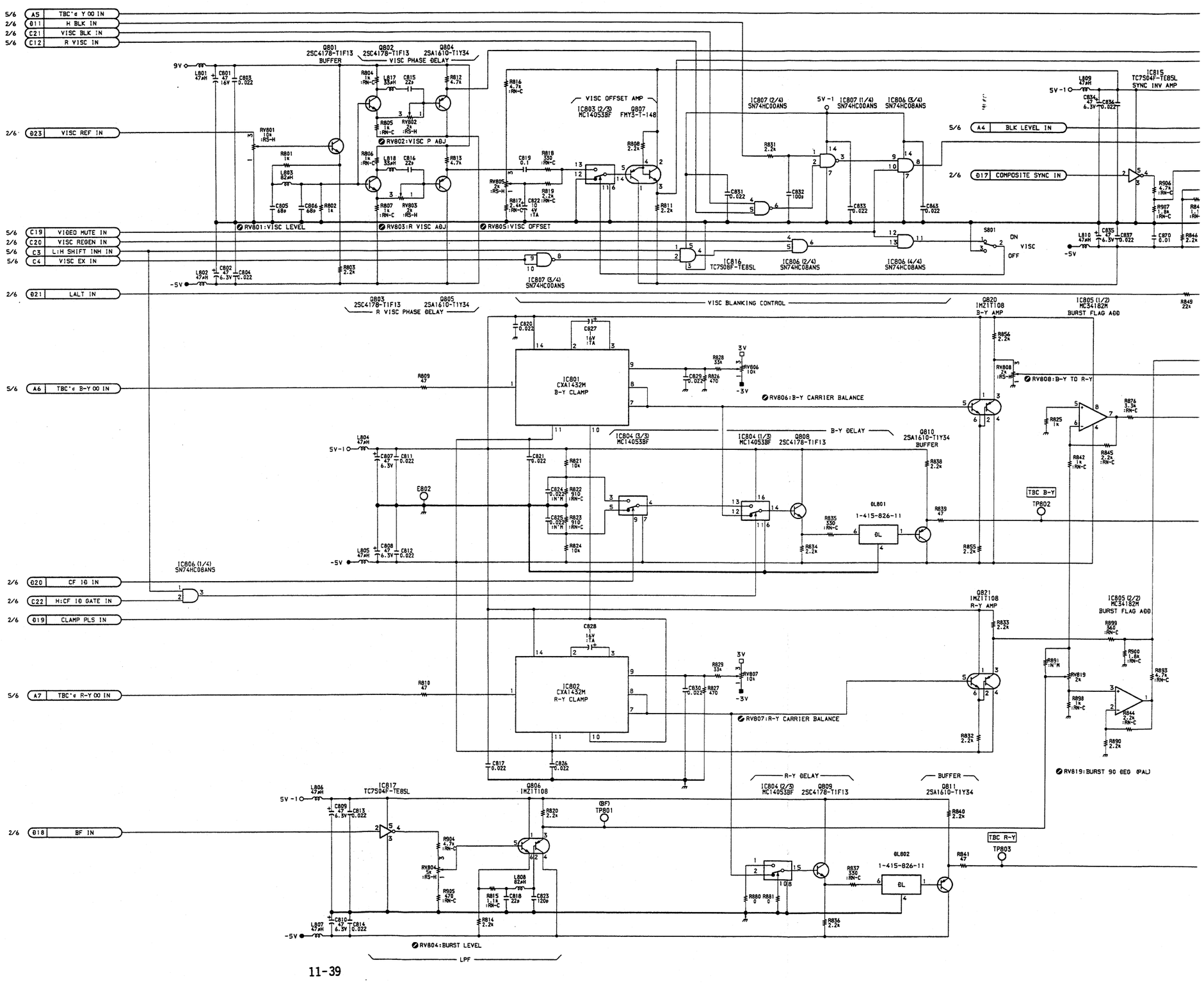
TBC-19 (5/6); TIME BASE CORRECTOR



TBC-19 (5/6)

1-638-691-14 (1)
BVW-50P

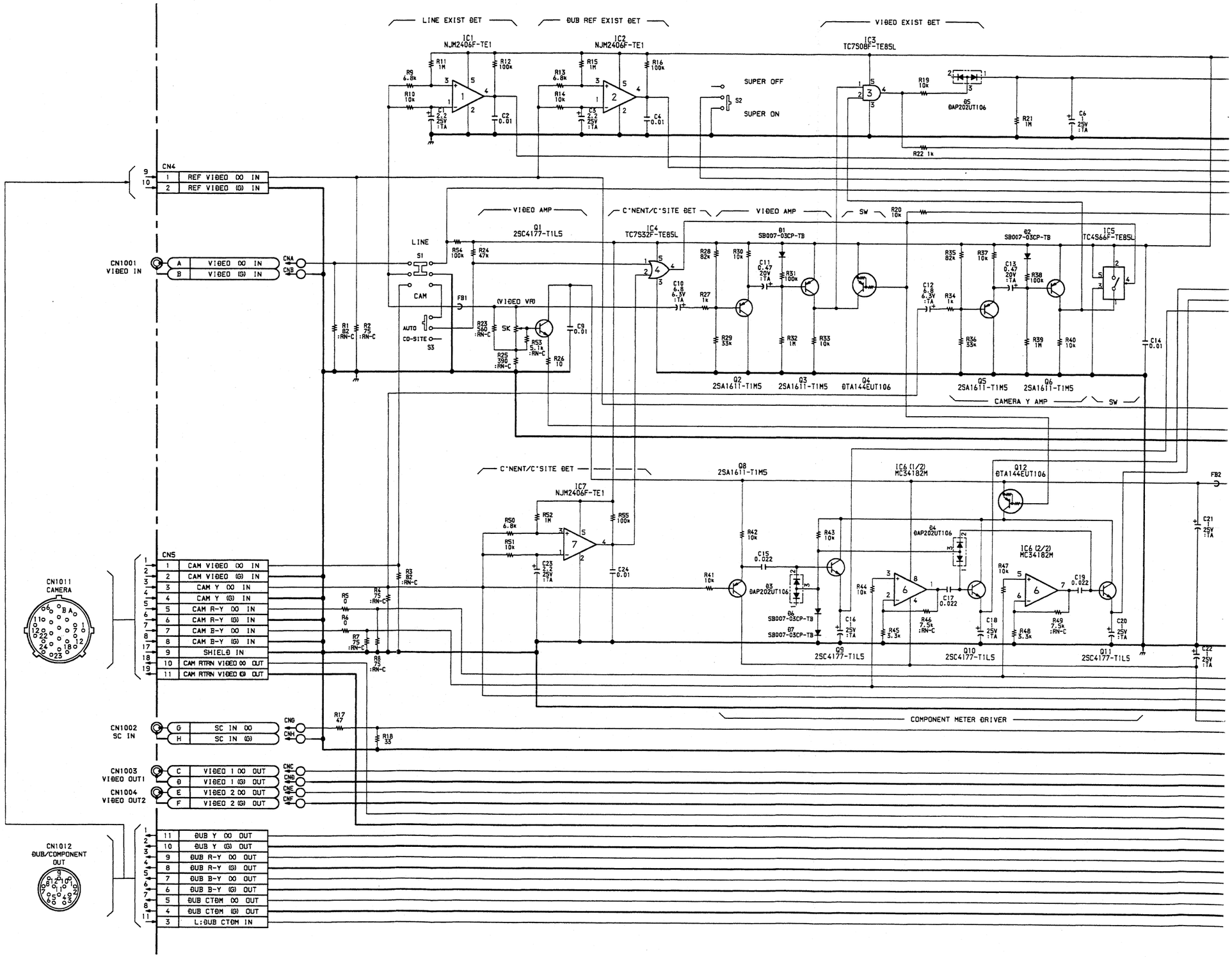
TBC-19 (6/6); VIDEO ENCODER

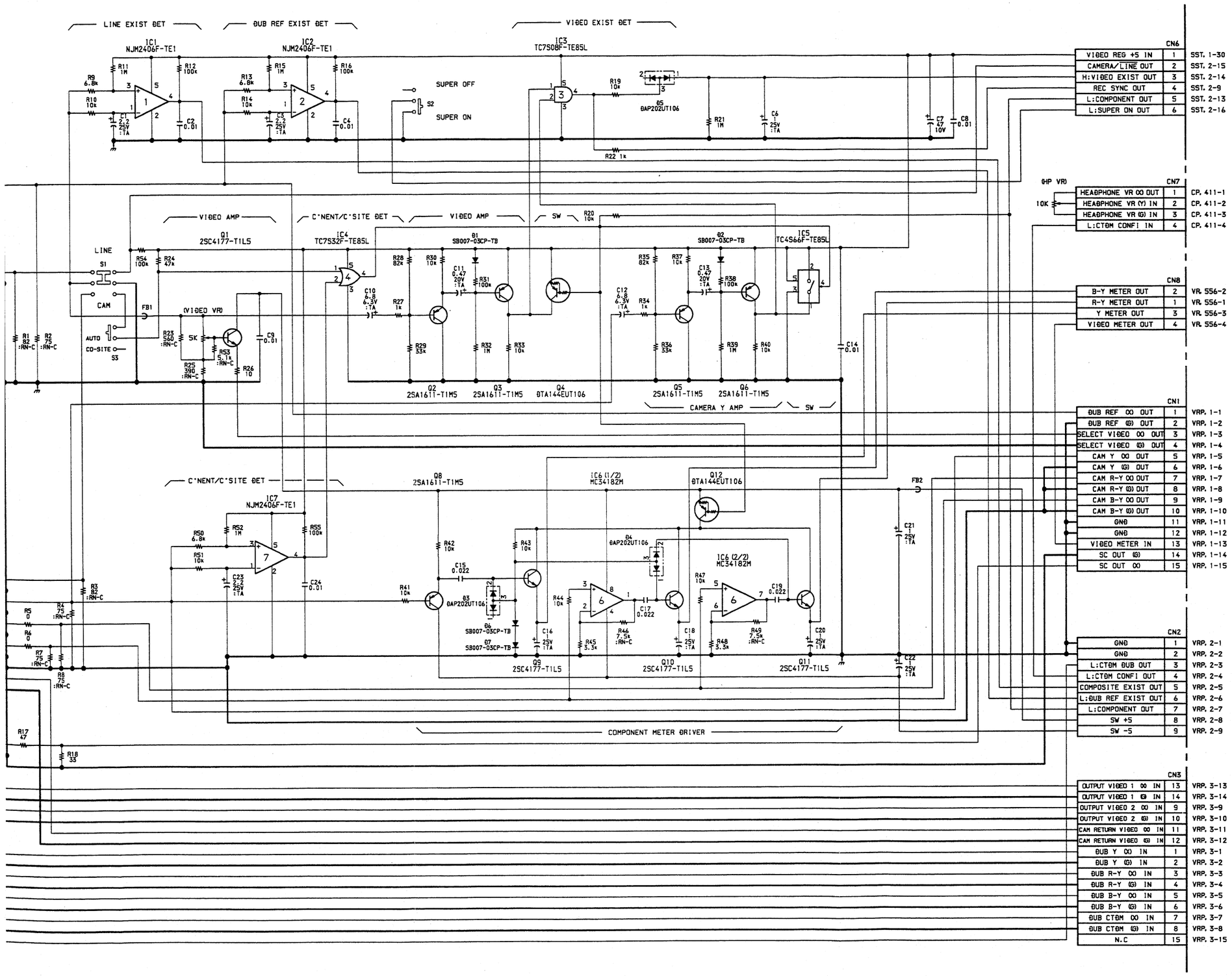


TBC-19 (6/6)

1-638-691-14 (1)
BVW-50P

CC-47 ; VIDEO INPUT/SELECTOR VIDEO METER DRIVER

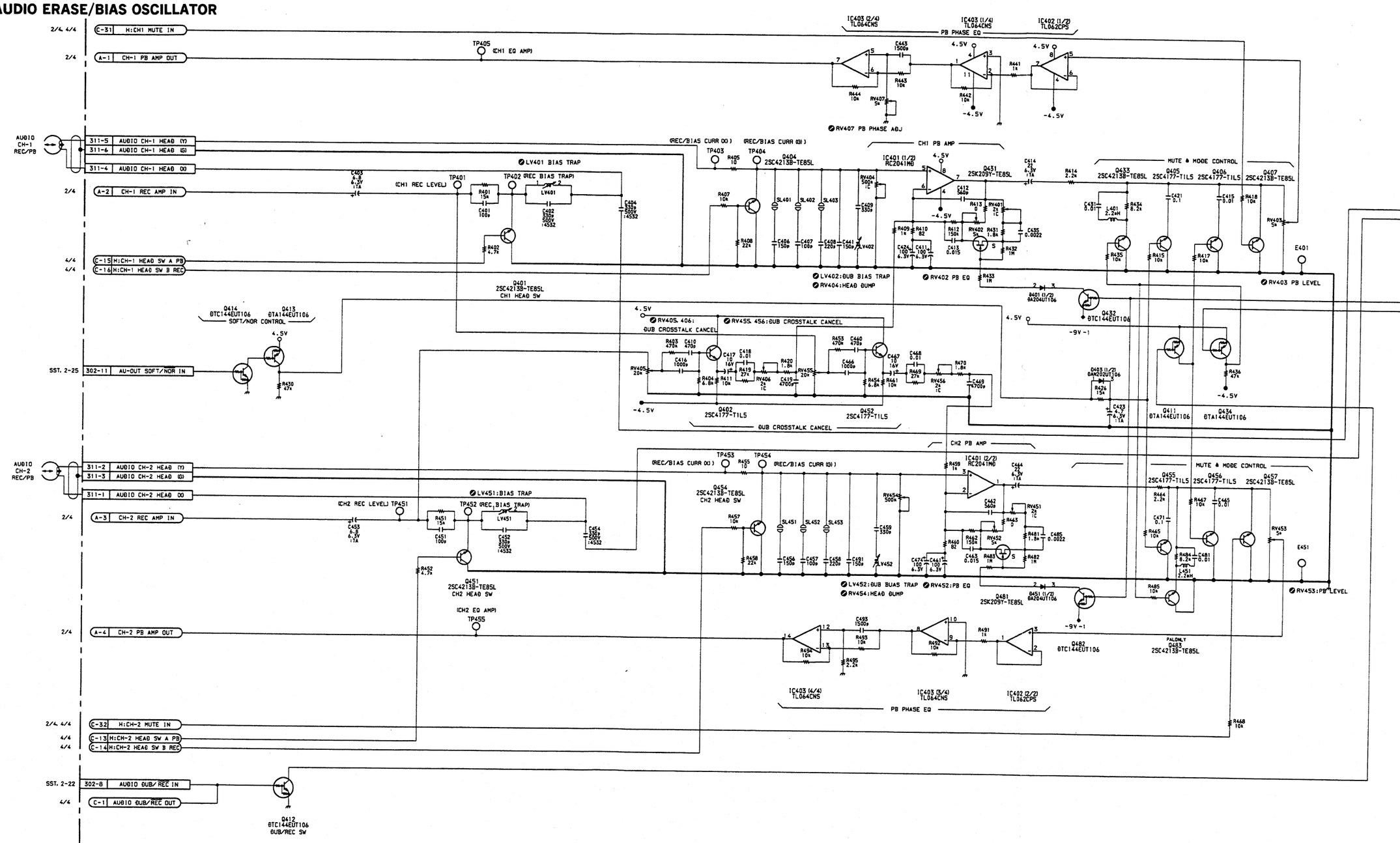




CC-47

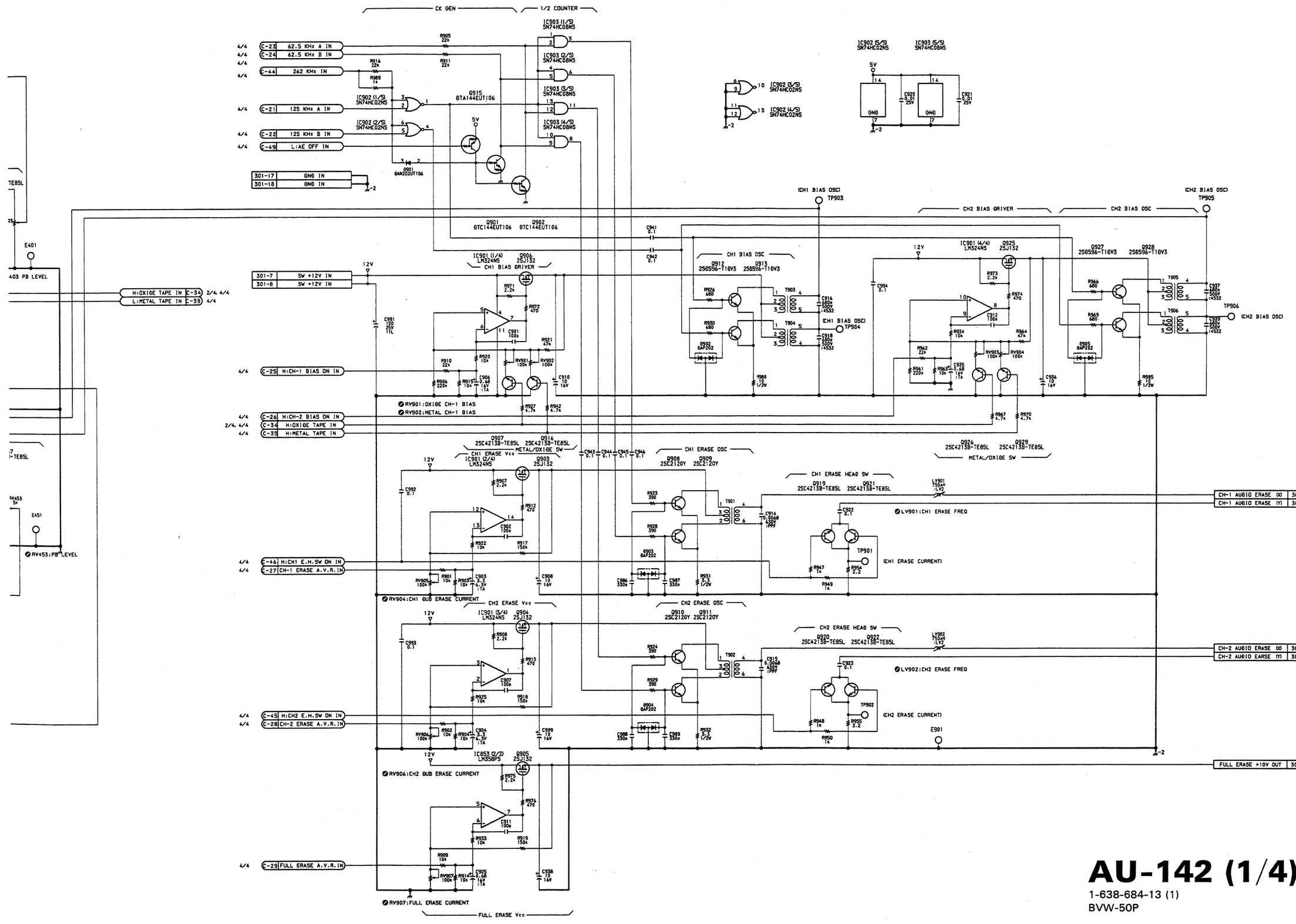
1-638-695-13 (1)
BVW-50
BVW-50P

AU-142 (1/4); AUDIO PB AMPLIFIER
AUDIO ERASE/BIAS OSCILLATOR



A | B | C | D | E | F | G | H

57

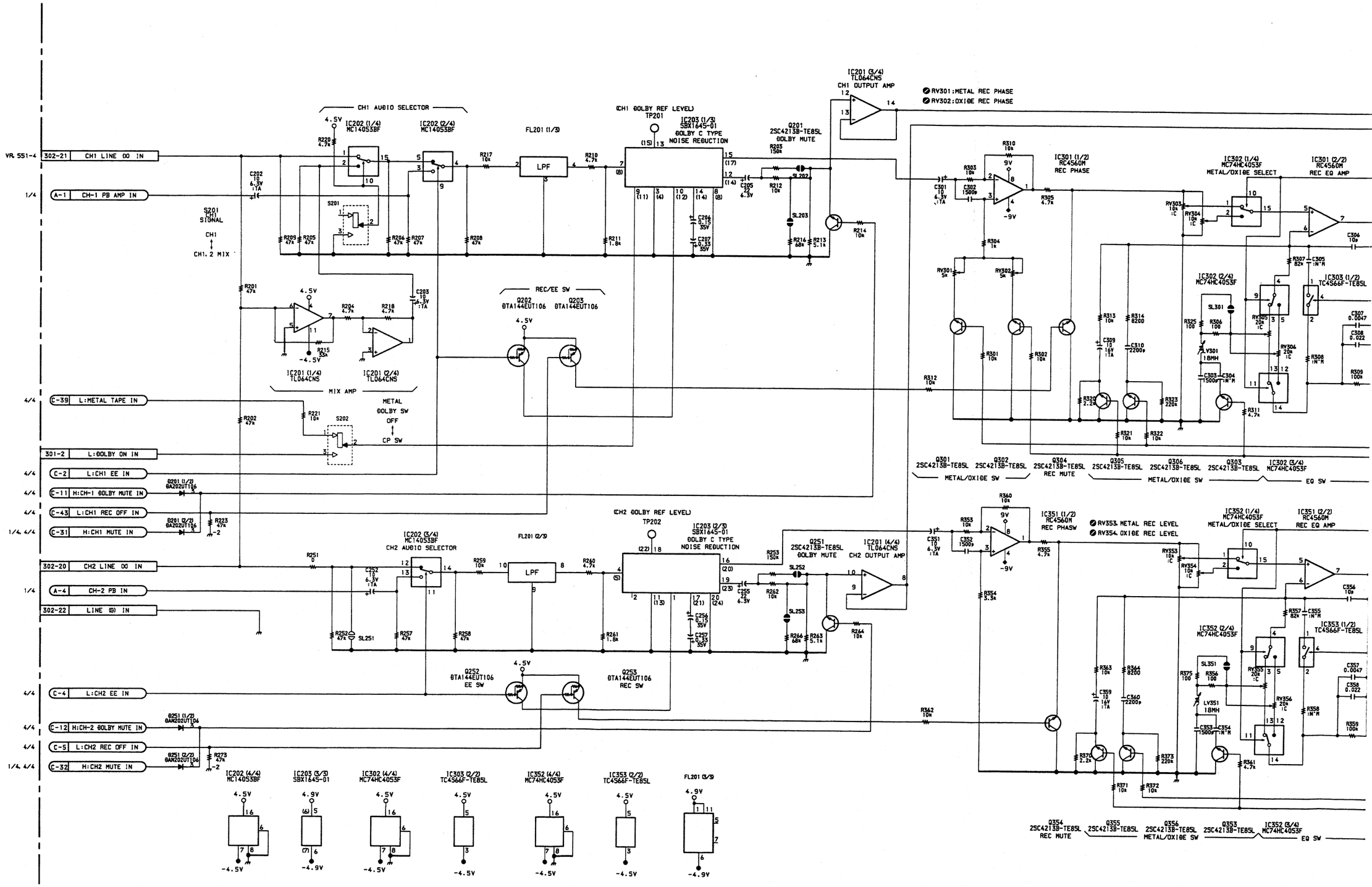


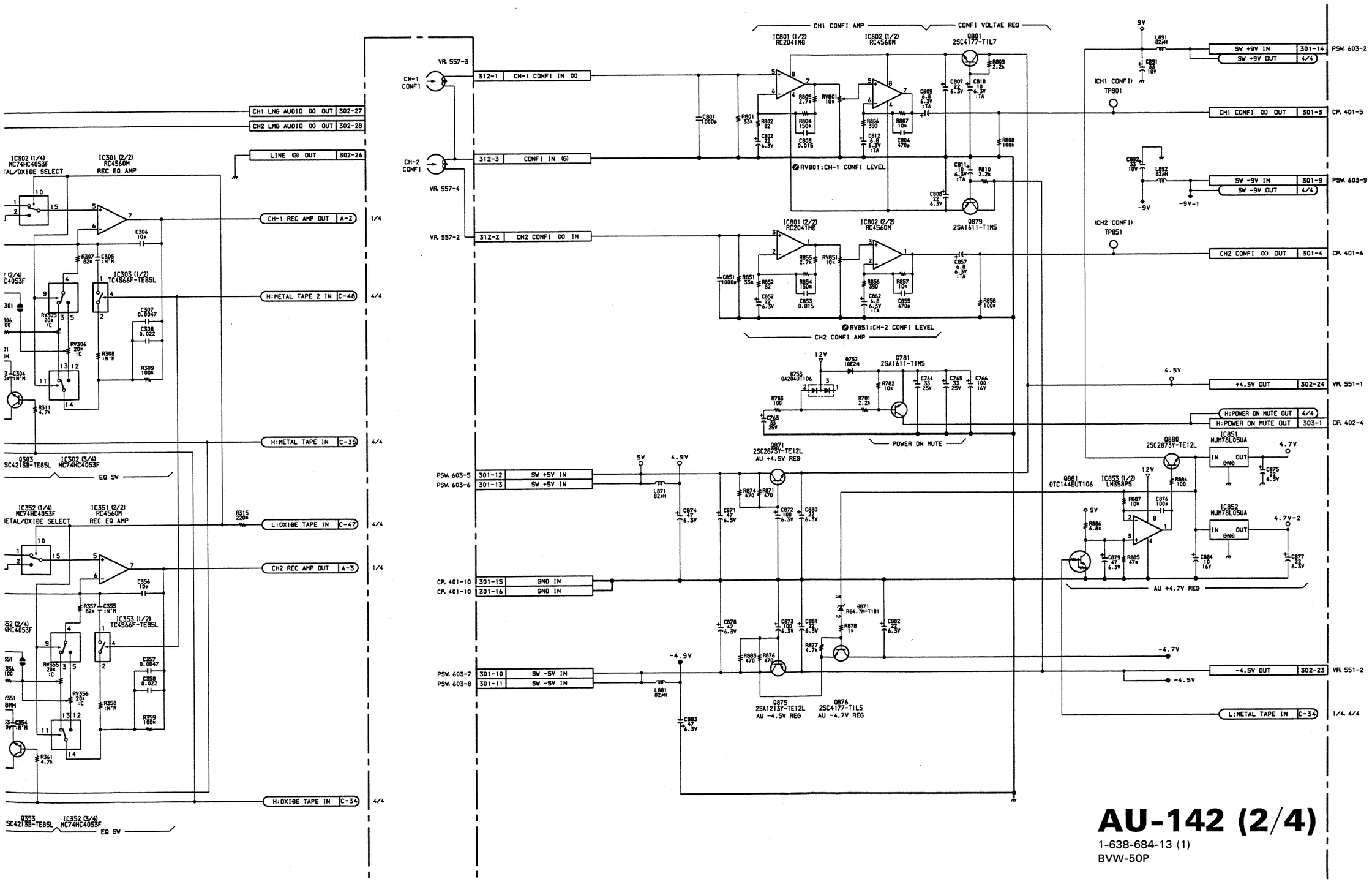
AU-142 (1/4)

1-638-684-13 (1)

BVW-50P

AU-142 (2/4); AUDIO REC AMPLIFIER
NOISE REDUCTION
AUDIO CONFI PB AMPLIFIER

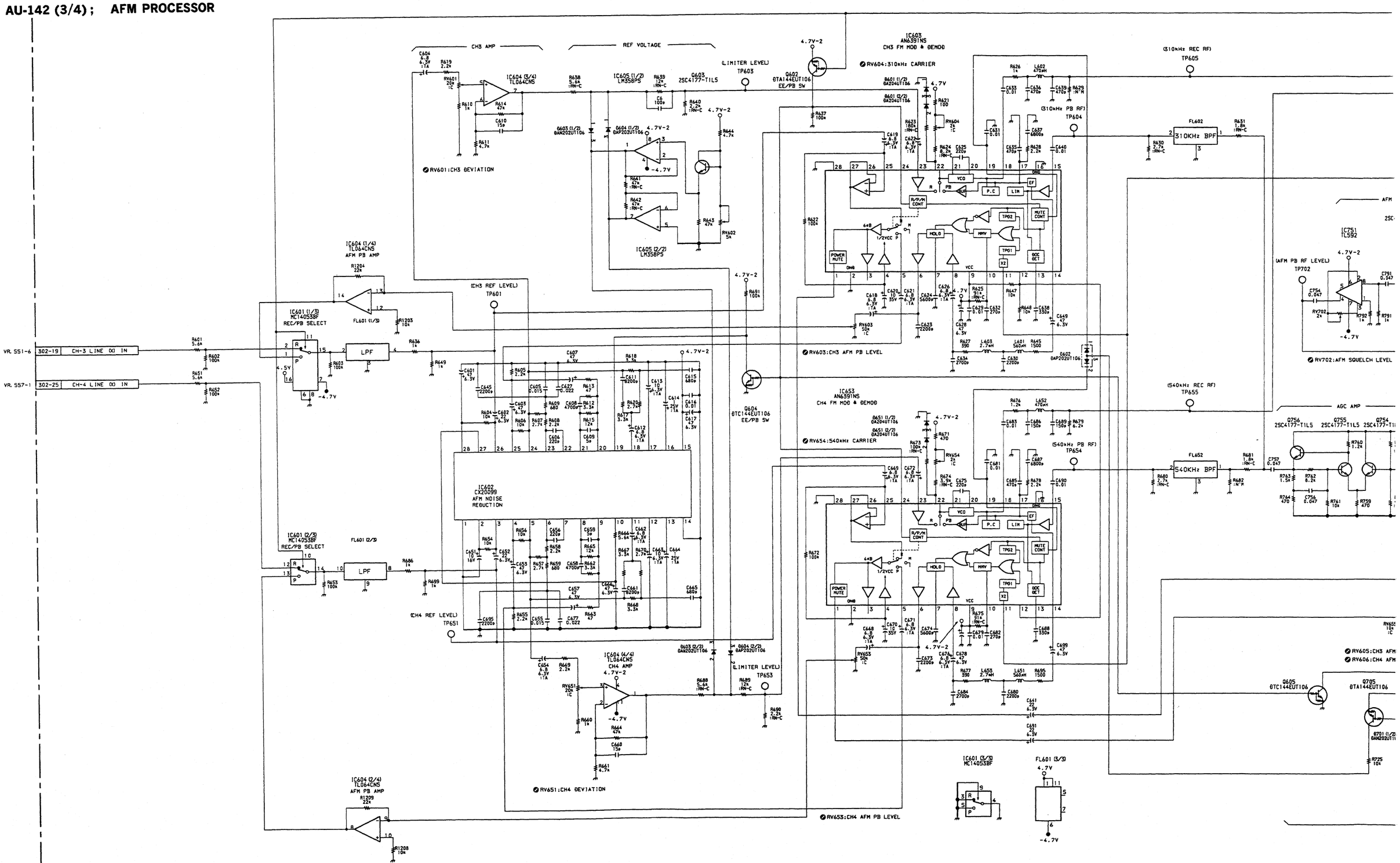


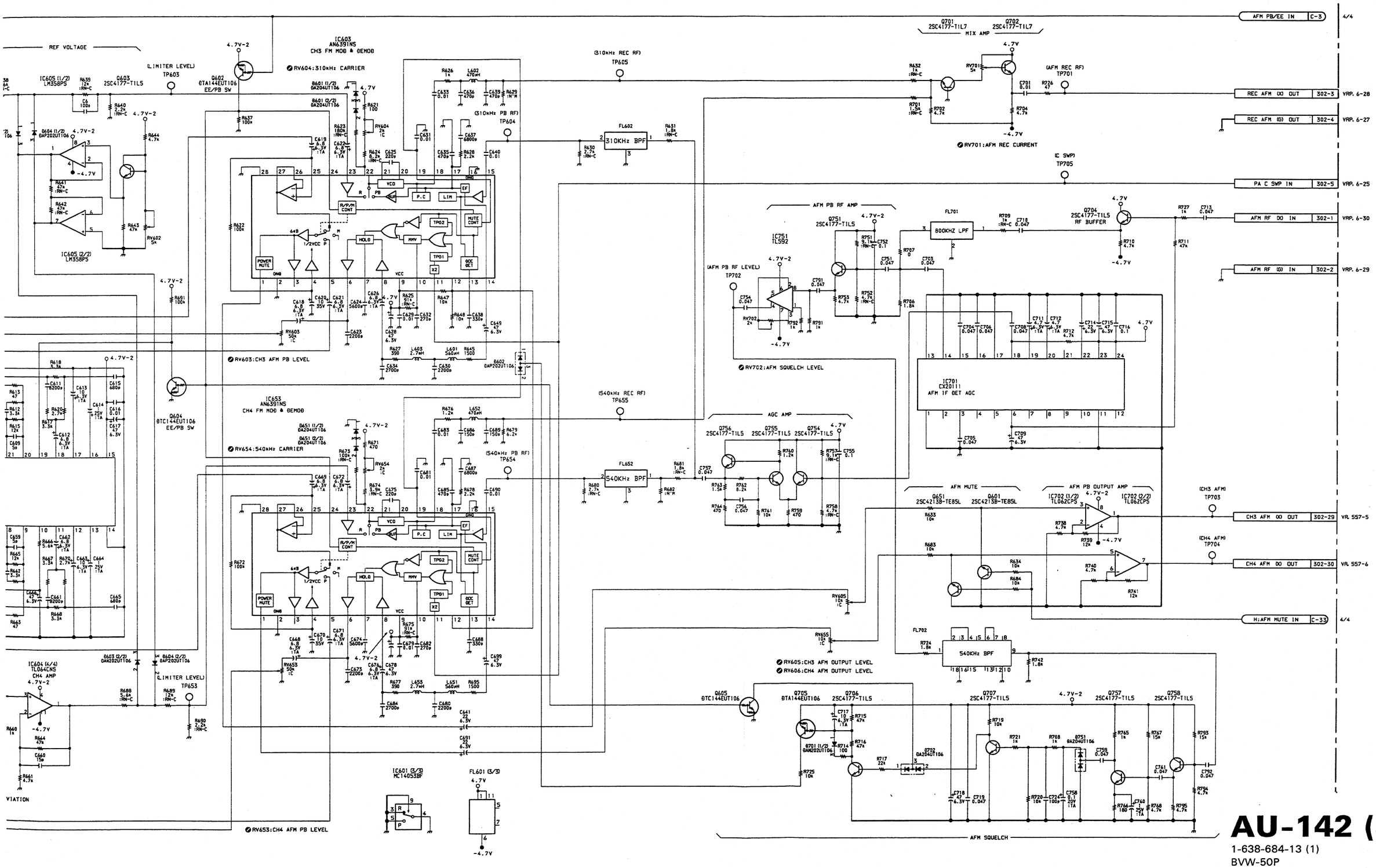


AU-142 (2/4)

1-638-684-13 (1)
BVW-50P

AU-142 (3/4) ; AFM PROCESSOR

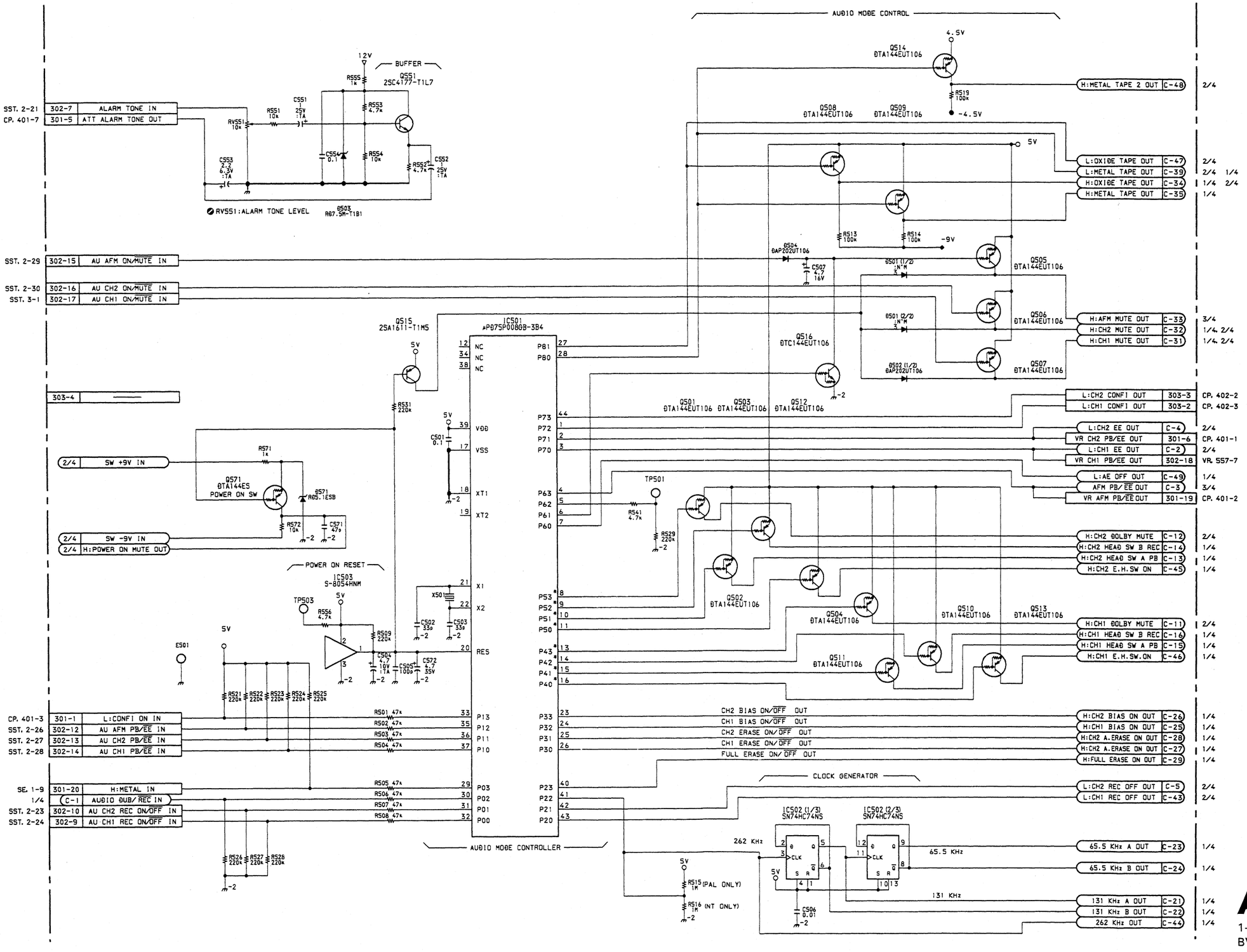




AU-142 (3/4)

1-638-684-13 (1)
BVW-50P

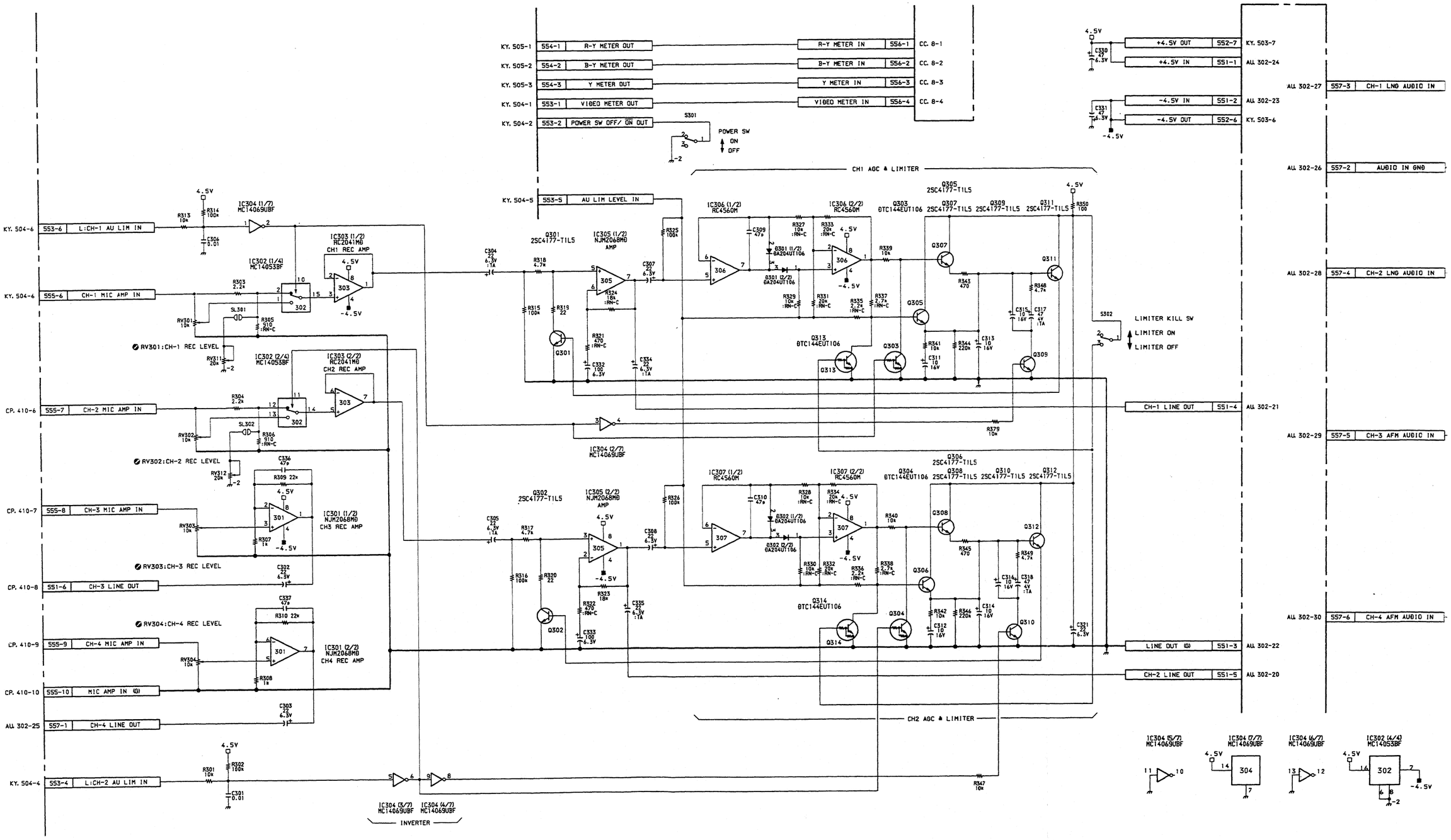
AU-142 (4/4); AUDIO MODE CONTROL



AU-142 (4/4)

1-638-684-13 (1)
BVW-50P

VR-118; AUDIO REC/PB LEVEL CONTROL
AUDIO LEVEL LIMITER
POWER SWITCH



R-Y METER OUT — R-Y METER IN — SS6-1 — CC. 8-1
B-Y METER OUT — B-Y METER IN — SS6-2 — CC. 8-2
Y METER OUT — Y METER IN — SS6-3 — CC. 8-3
VIDEO METER OUT — VIDEO METER IN — SS6-4 — CC. 8-4
POWER SW OFF/ ON OUT — S301 — POWER SW ON OFF

CH1 AGC & LIMITER

AU LIM LEVEL IN
IC305 (1/2) NJM2068MD AMP
IC306 (1/2) RC4560M
IC306 (2/2) RC4560M
Q303 DTC144EUT106
Q305 2SC4177-T1L5
Q307 2SC4177-T1L5
Q309 2SC4177-T1L5
Q311 2SC4177-T1L5
D301 (1/2) DA204UT106
D301 (2/2) DA204UT106
Q313 DTC144EUT106
S302 LIMITER KILL SW ON OFF
CH-1 LINE OUT — SS1-4 — AU 302-21
LINE OUT (G) — SS1-3 — AU 302-22
CH-2 LINE OUT — SS1-5 — AU 302-20

IC304 (2/7) MC14069UBF
IC307 (1/2) RC4560M
IC307 (2/2) RC4560M
Q304 DTC144EUT106
Q306 2SC4177-T1L5
Q308 2SC4177-T1L5
Q310 2SC4177-T1L5
Q312 2SC4177-T1L5
D302 (1/2) DA204UT106
D302 (2/2) DA204UT106
Q314 DTC144EUT106

CH2 AGC & LIMITER

4.5V — +4.5V OUT — SS2-7 — KY. 503-7
+4.5V IN — SS1-1 — AU 302-24
-4.5V IN — SS1-2 — AU 302-23
-4.5V OUT — SS2-6 — KY. 503-6

AU 302-27 — SS7-3 — CH-1 LNG AUDIO IN
AU 302-26 — SS7-2 — AUDIO IN GND
AU 302-28 — SS7-4 — CH-2 LNG AUDIO IN
AU 302-29 — SS7-5 — CH-3 AFM AUDIO IN
AU 302-30 — SS7-6 — CH-4 AFM AUDIO IN

CH1 PB AMP
IC302 (3/4) MC14053BF
IC309 (1/2) TL062CPS
AU CH1 PB/EE IN — SS7-7 — AU 302-18
CH-1 AUDIO OUT — SS5-1 — CP. 410-1
CH-1 METER OUT — SS2-1 — KY. 503-1
KY AUDIO GND — SS2-5 — KY. 503-5
AUDIO OUT GND — SS5-5 — CP. 410-5
RV305:CH-1 PB VOLUME

CH2 PB AMP
IC308 (1/4) MC14053BF
IC309 (2/2) TL062CPS
AU CH2 PB/EE IN — SS5-12 — CP. 410-12
CH-2 AUDIO OUT — SS5-2 — CP. 410-2
CH-2 METER OUT — SS2-2 — KY. 503-2
RV306:CH-2 PB VOLUME

CH3 PB AMP
IC308 (2/4) MC14053BF
IC310 (1/2) TL062CPS
AFM PB/EE IN — SS5-11 — CP. 410-11
CH-3 AUDIO OUT — SS5-3 — CP. 410-3
CH-3 METER OUT — SS2-3 — KY. 503-3
RV307:CH-3 PB VOLUME

CH4 PB AMP
IC308 (3/4) MC14053BF
IC310 (2/2) TL062CPS
CH-4 AUDIO OUT — SS5-4 — CP. 410-4
CH-4 METER OUT — SS2-4 — KY. 503-4
RV308:CH-4 PB VOLUME

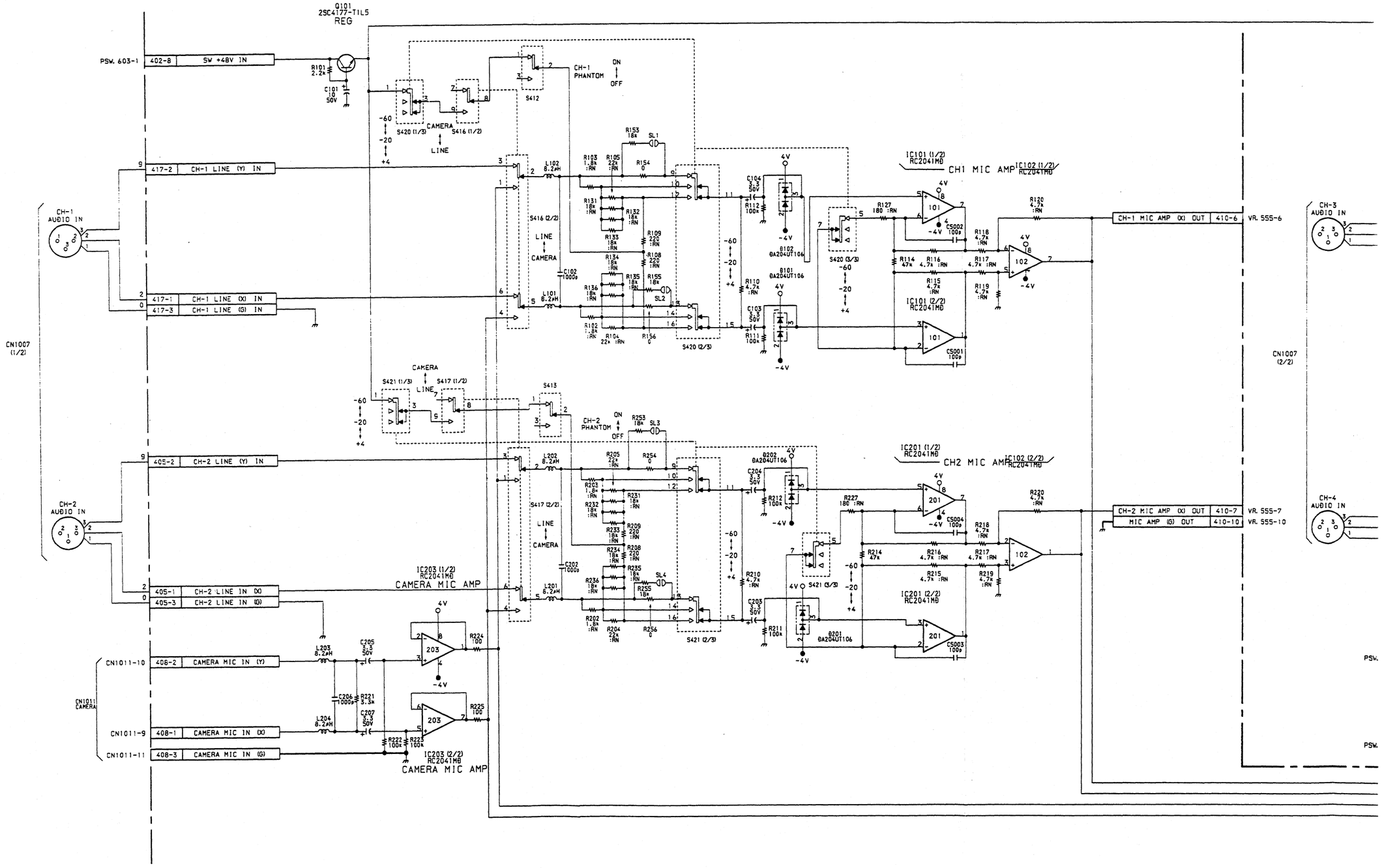
IC308 (4/4) MC14053BF

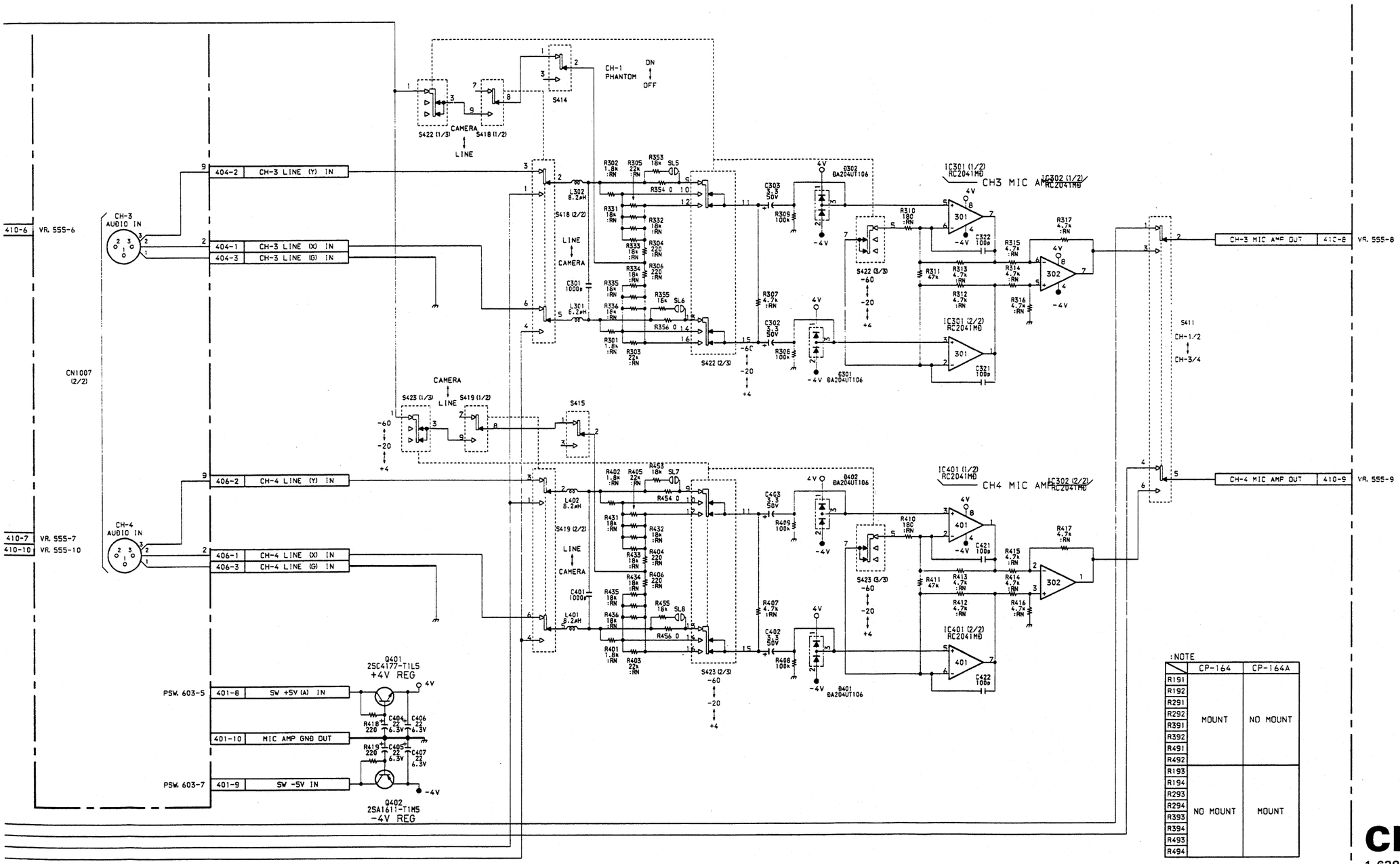
IC304 (5/7) MC14069UBF
IC304 (7/7) MC14069UBF
IC304 (6/7) MC14069UBF
IC302 (4/4) MC14053BF

VR-118

1-638-692-12 (1)
BVW-50
BVW-50P

CP-164/A (1/3); AUDIO INPUT AMPLIFIER/SELECTOR





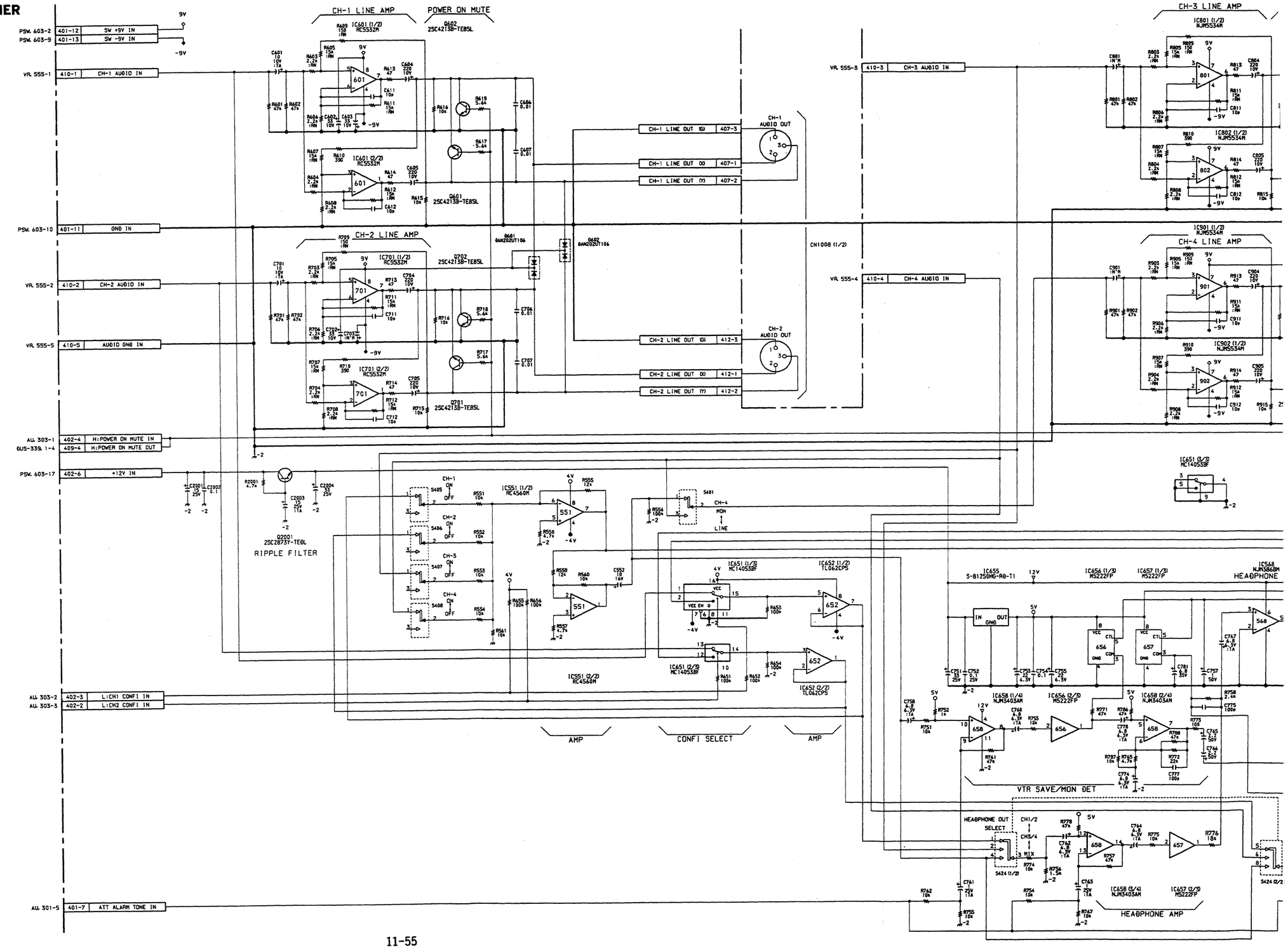
:NOTE

	CP-164	CP-164A
R191	MOUNT	NO MOUNT
R192		
R291		
R292		
R391		
R392		
R491		
R492		
R193	NO MOUNT	MOUNT
R194		
R293		
R294		
R393		
R394		
R493		
R494		

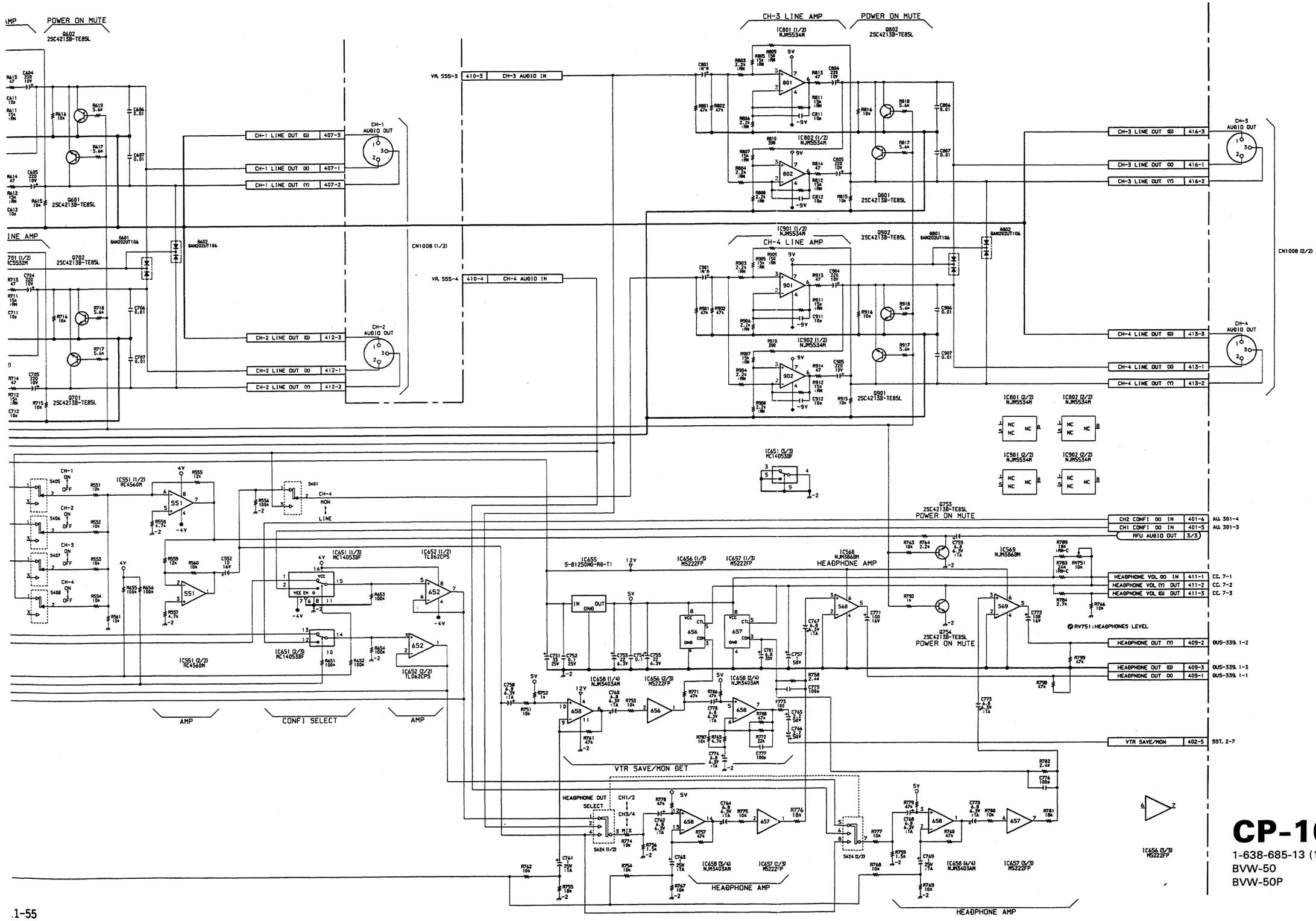
CP-164/A (1/3)

1-638-685-13 (1)
BVW-50
BVW-50P

CP-164/A (2/3); AUDIO OUTPUT AMPLIFIER PHONES AMPLIFIER



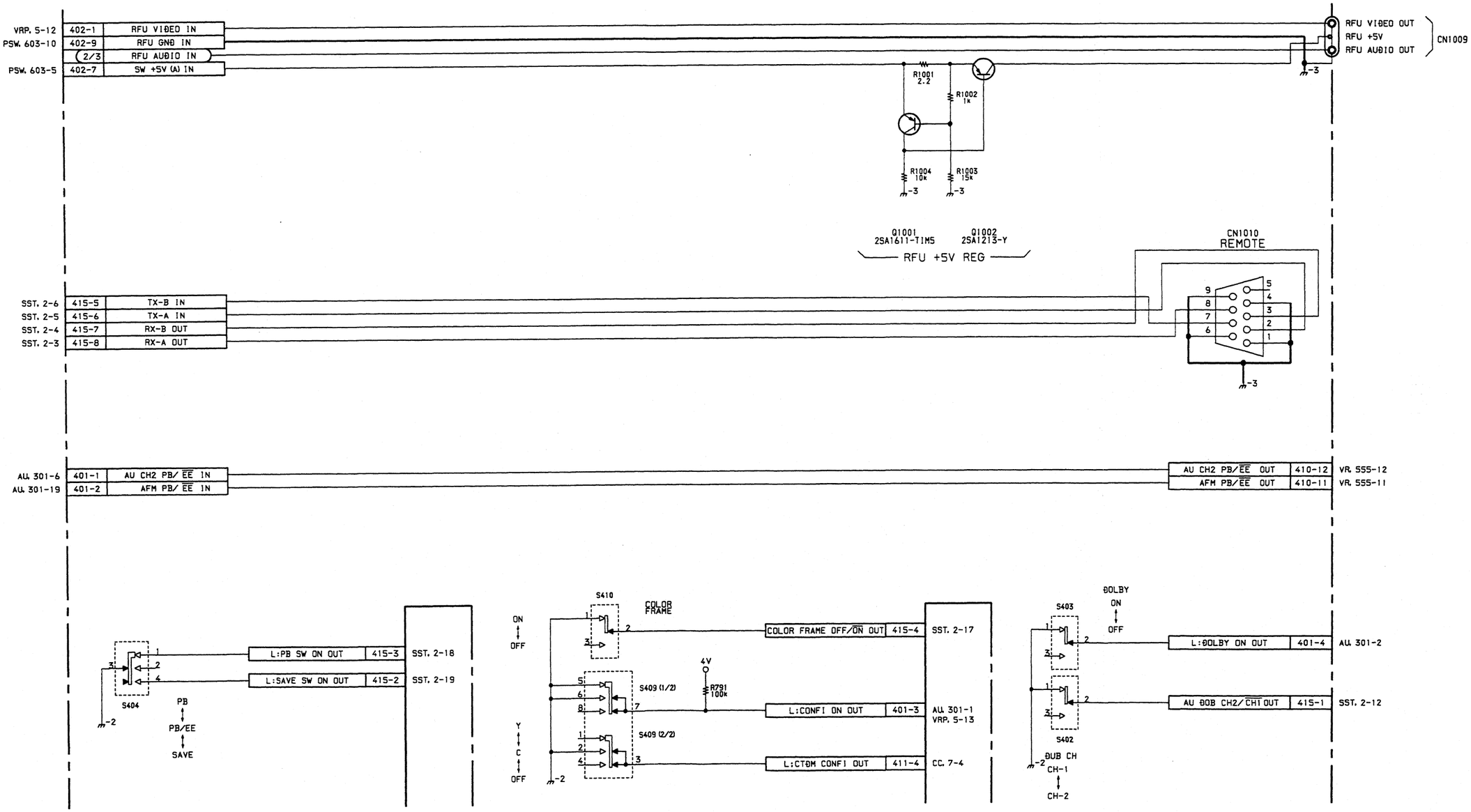
CP-164/A (2/3)



CP-164/A (2/3)

1-638-685-13 (1)
BVW-50
BVW-50P

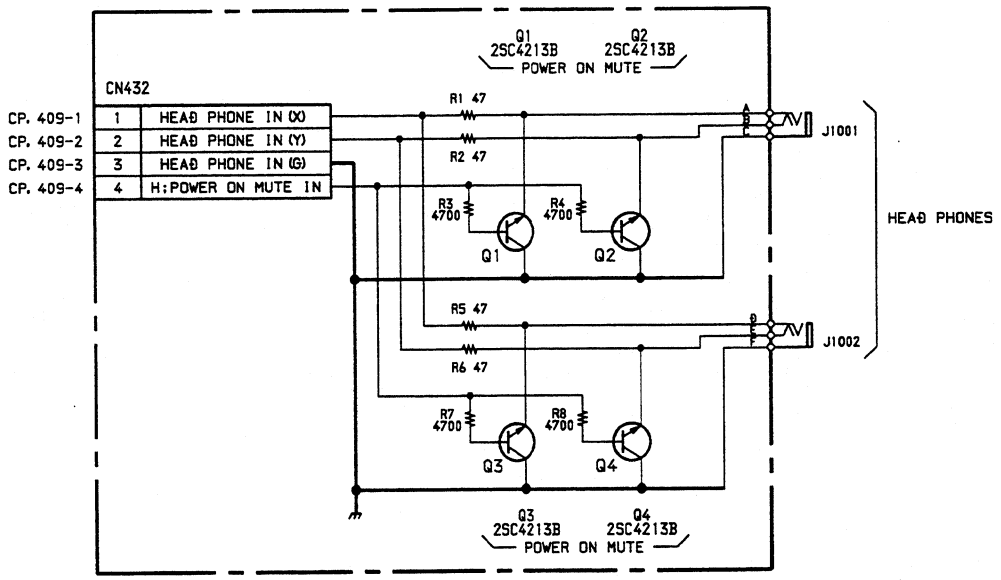
CP-164/A (3/3); REMOTE/RFU CONNECTOR
CONNECTOR PANEL SWITCHES



CP-164/A (3/3)

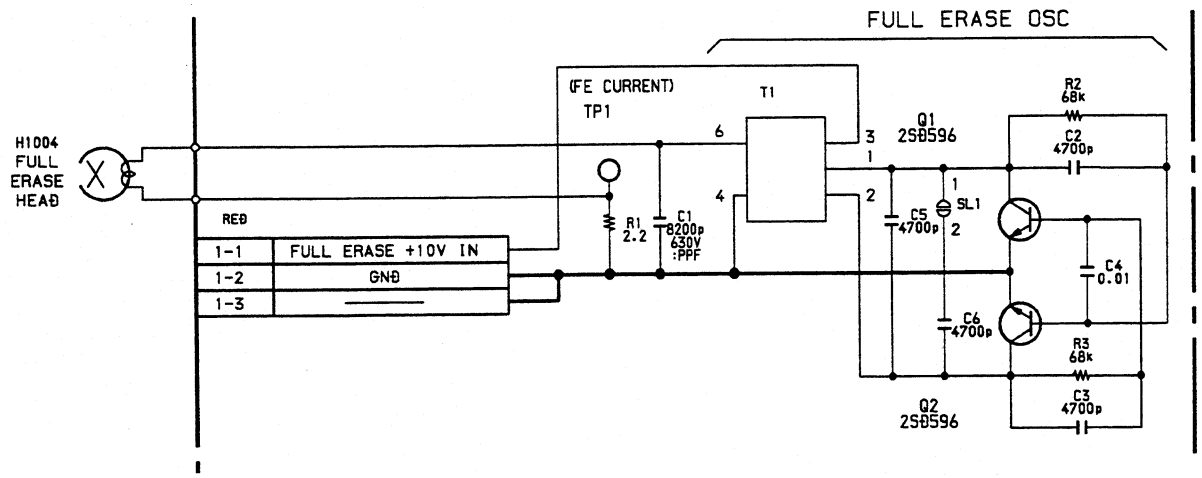
1-638-685-13 (1)
BVW-50
BVW-50P

DUS-339 ; PHONES JACK
FE-11 ; FULL ERASE OSCILLATOR



DUS-339

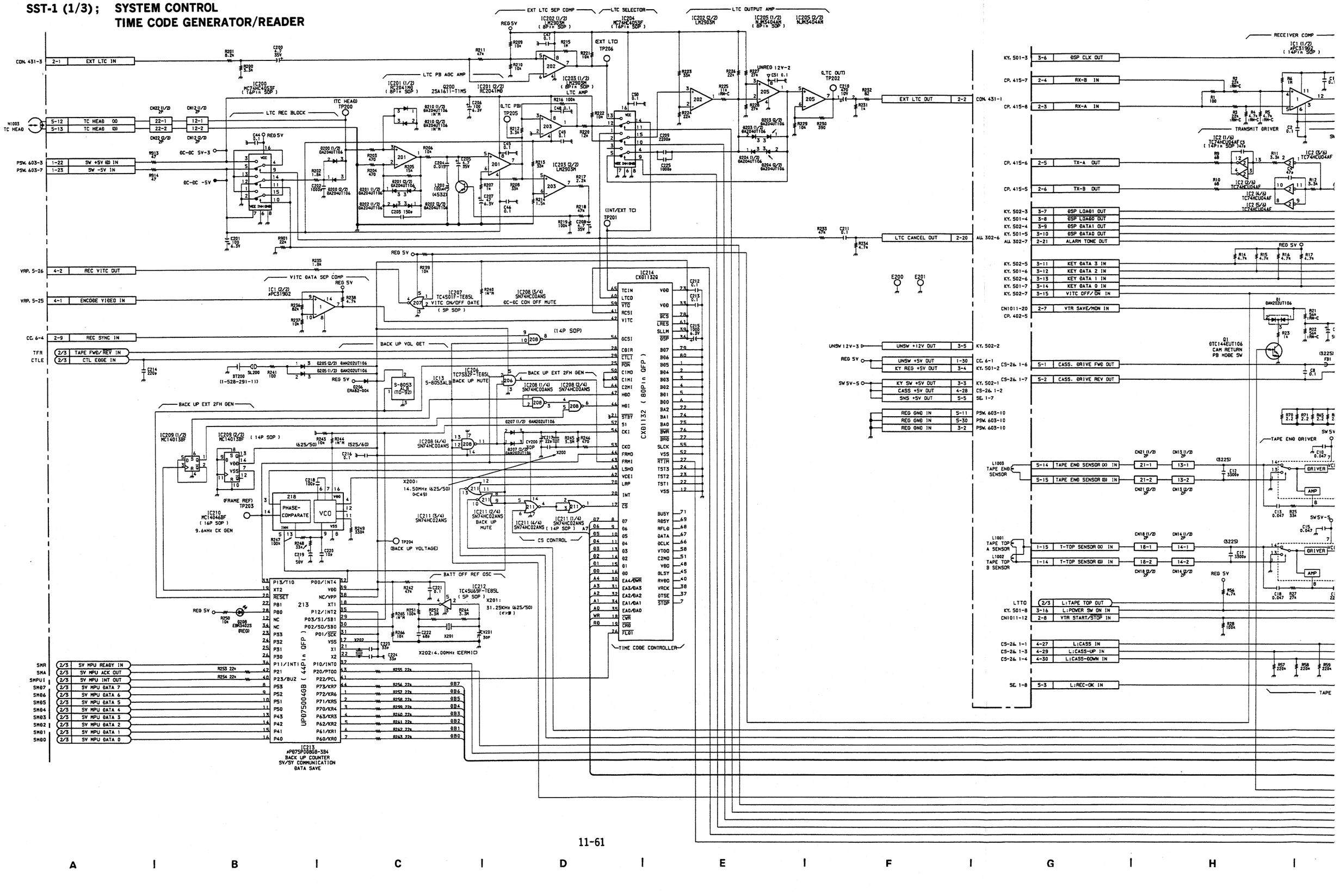
1-638-694-13 (1)
BVW-50
BVW-50P



FE-11

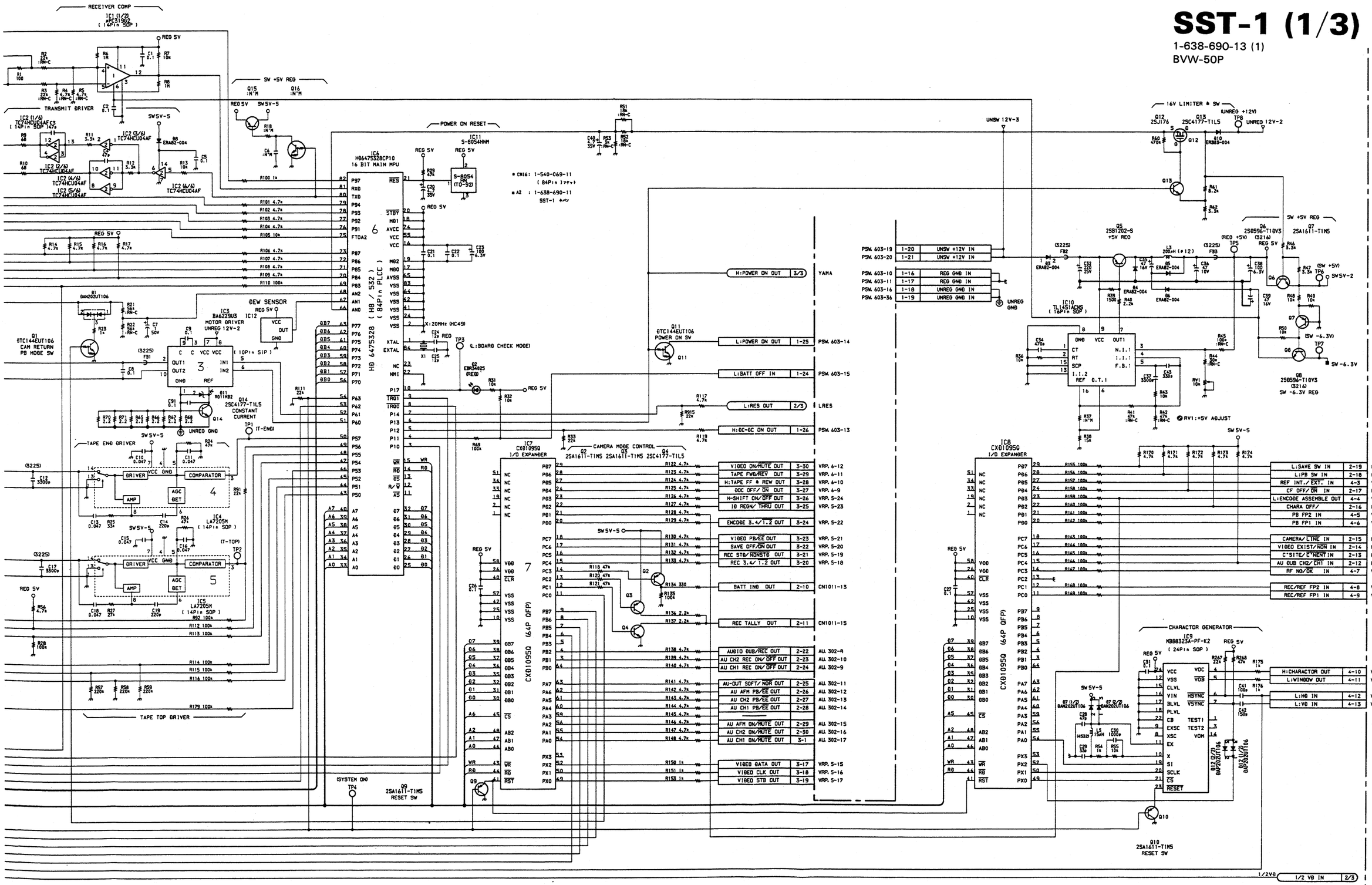
1-638-696-12 (1)
BVW-50
BVW-50P

SST-1 (1/3); SYSTEM CONTROL
TIME CODE GENERATOR/READER

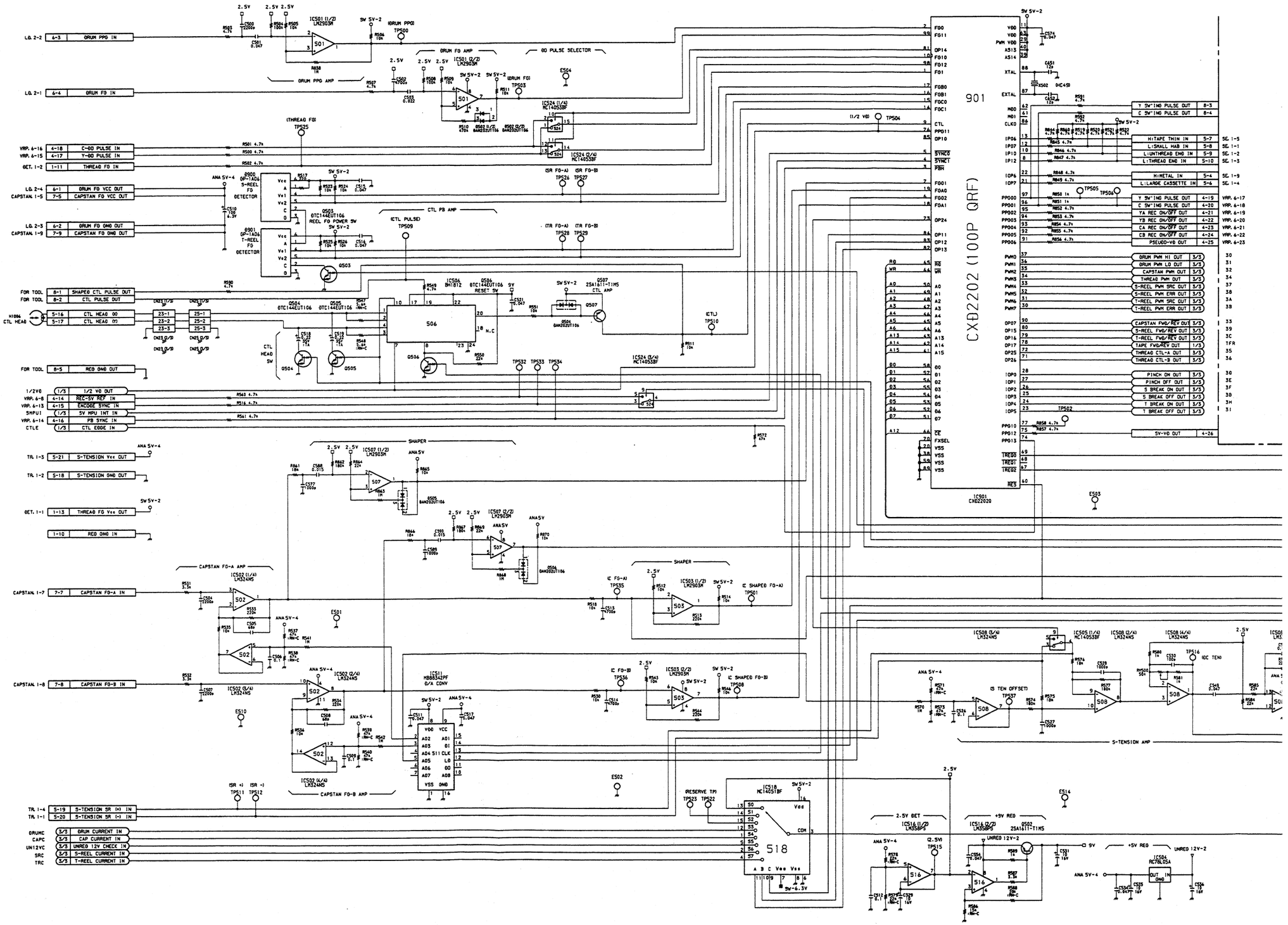


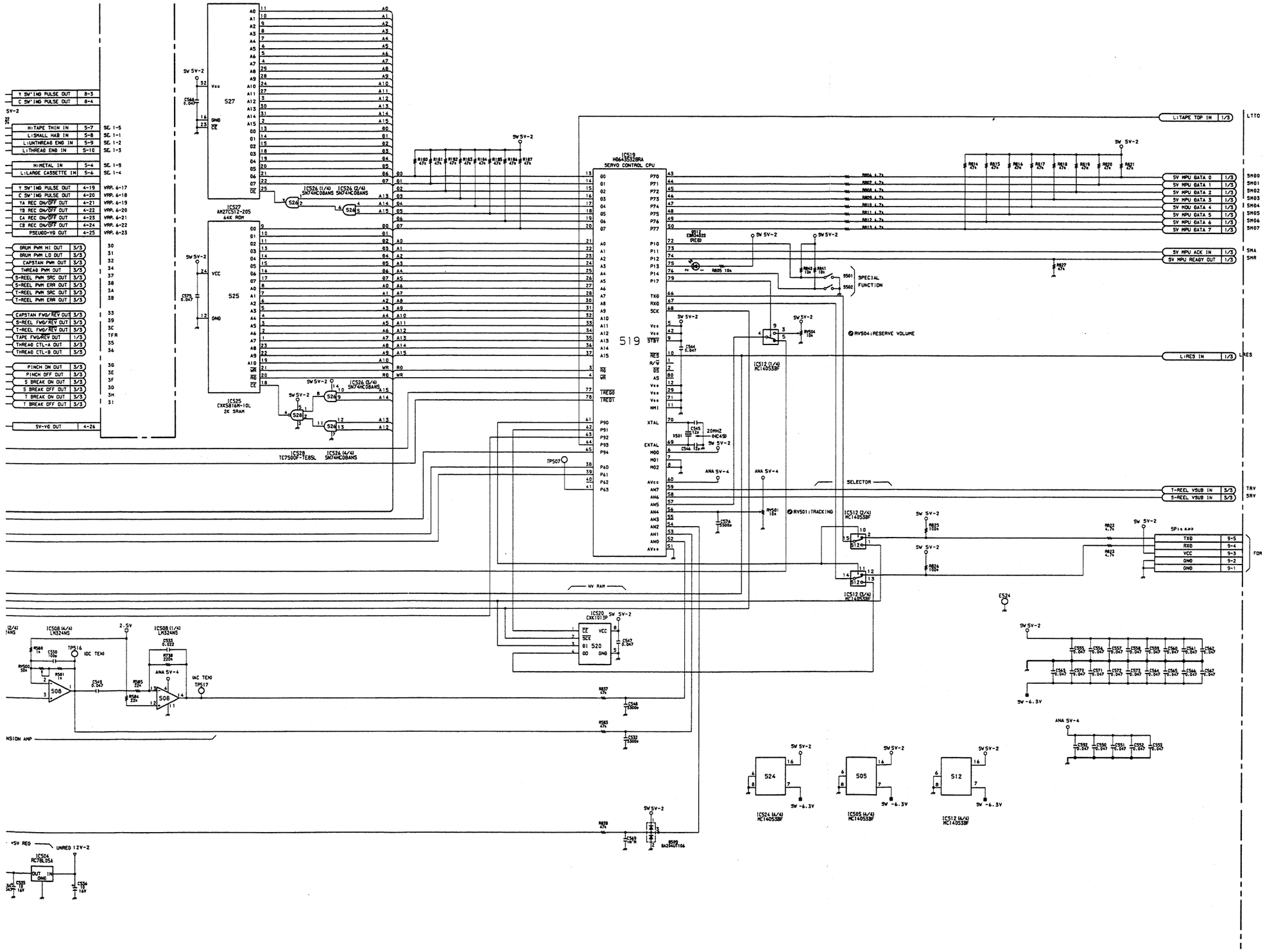
SST-1 (1/3)

1-638-690-13 (1)
BVW-50P



SST-1 (2/3) ; DRUM/CAPSTAN/REEL SERVO



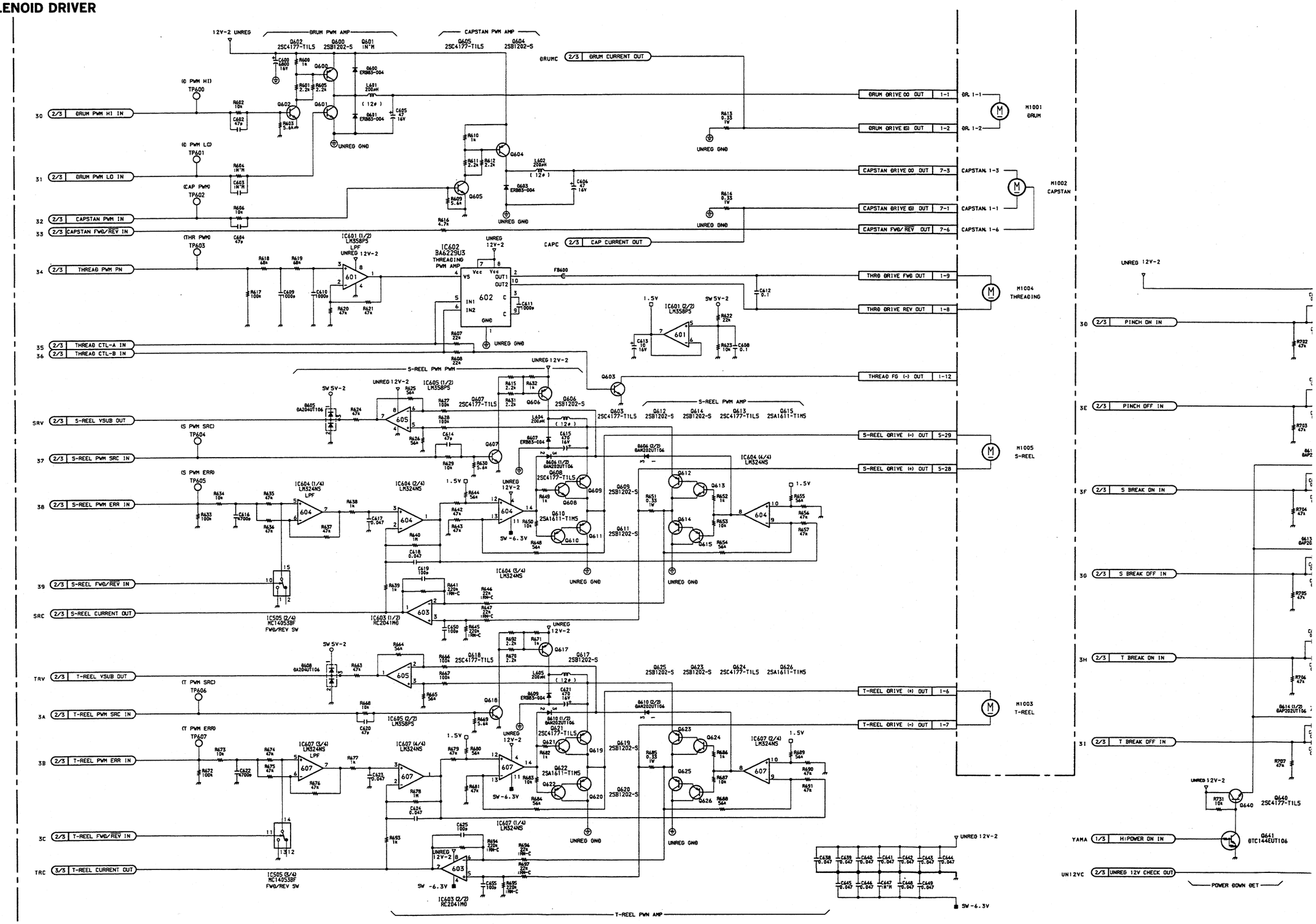


SST-1 (2/3)

1-638-690-13 (1)
BVW-50P

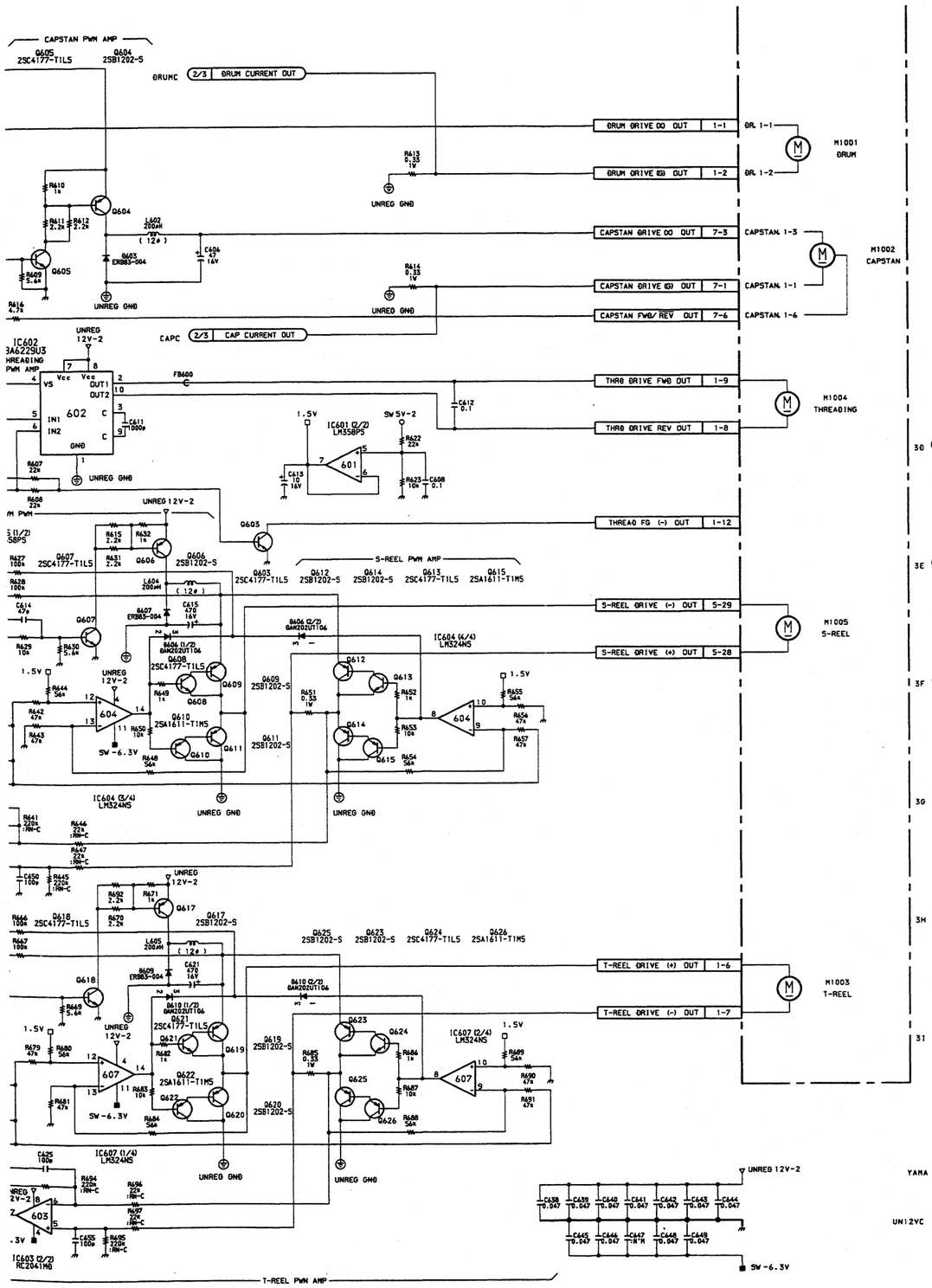
11-63

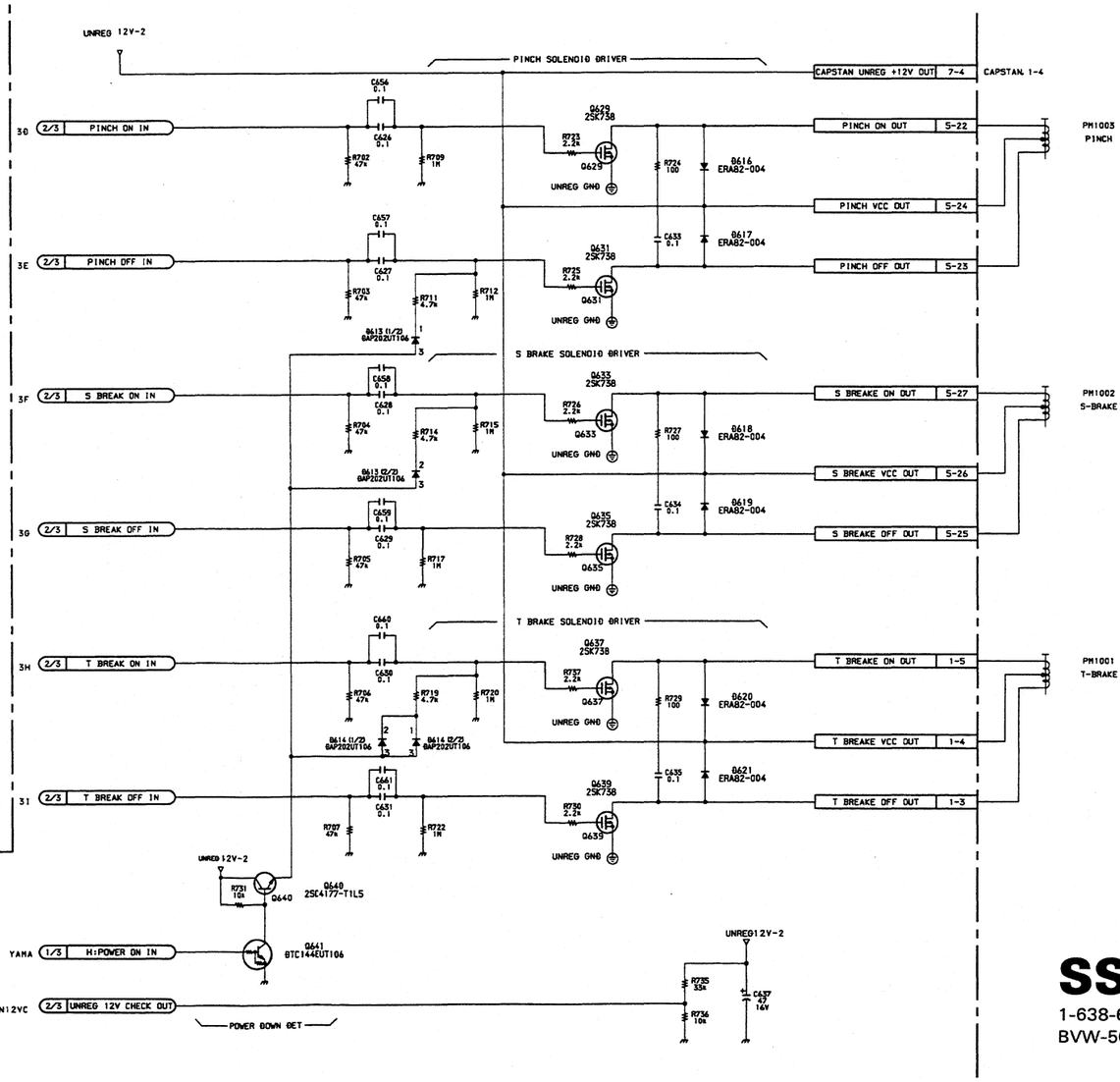
SST-1 (3/3); MOTOR/SOLENOID DRIVER



A | B | C | D | E | F | G | H |

SST-1 (3/3)

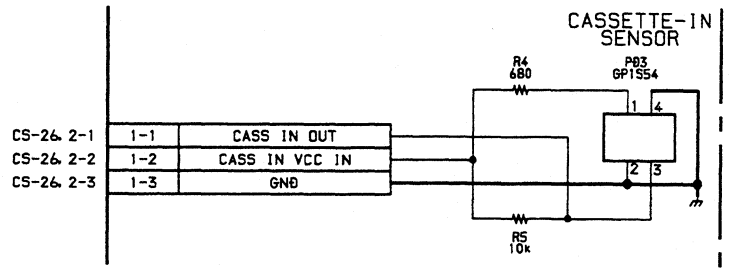




SST-1 (3/3)

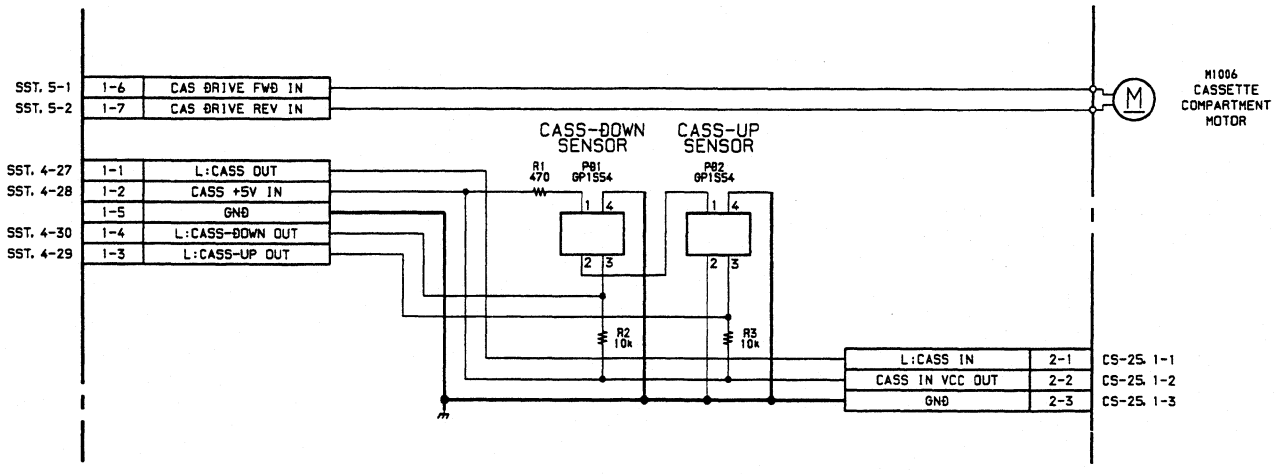
1-638-690-13 (1)
BVW-50P

CS-25 ; CASSETTE IN DETECTOR
CS-26 ; CASSETTE UP/DOWN DETECTOR



CS-25

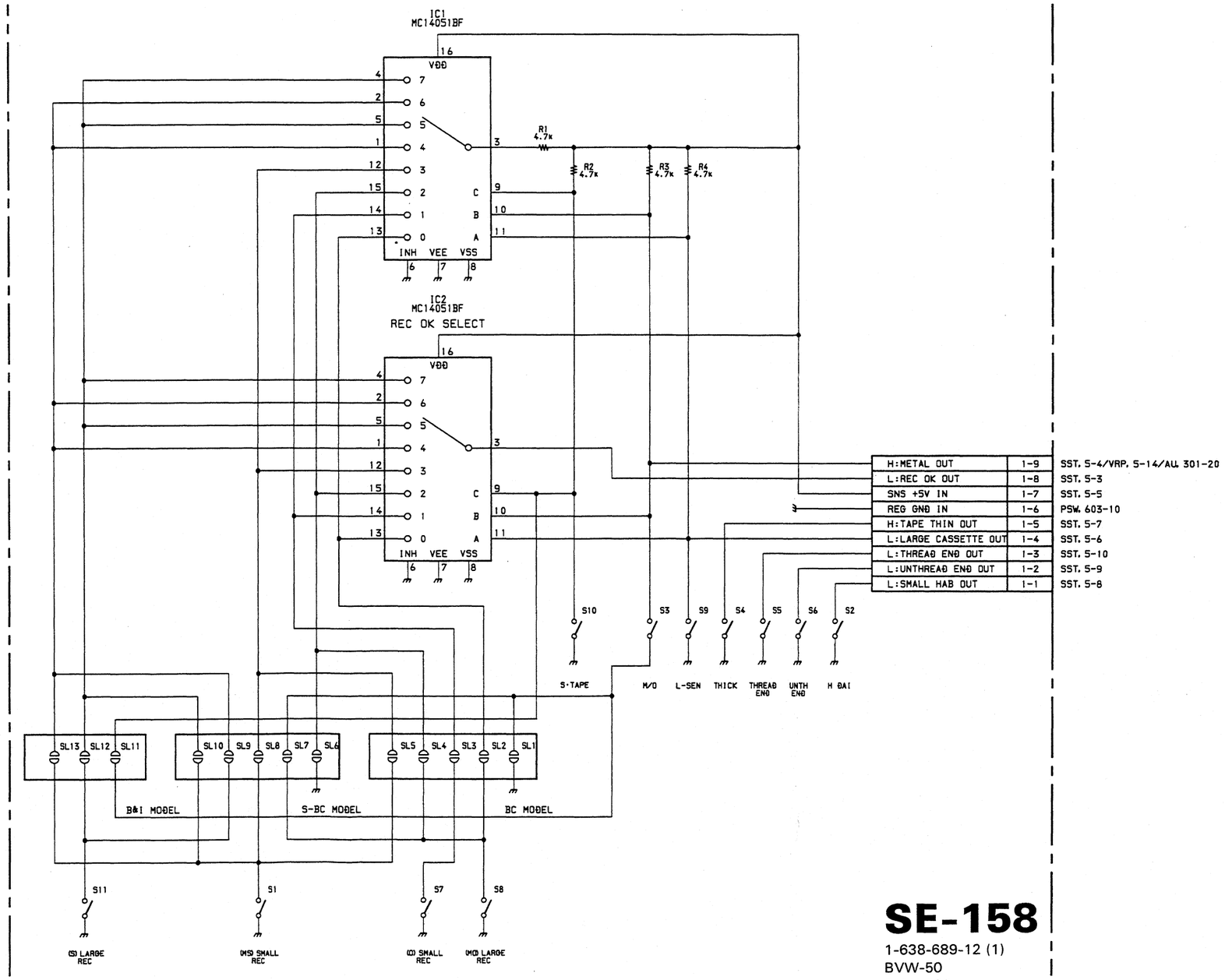
1-638-701-12 (1)
BVW-50
BVW-50P



CS-26

1-638-702-11 (1)
BVW-50
BVW-50P

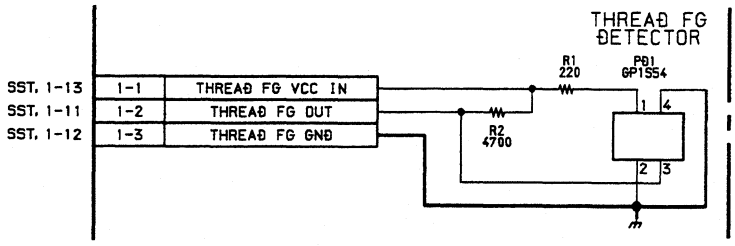
SE-158; THREAD/UNTHREAD END DETECTOR
TAPE/CASSETTE DETECTOR



SE-158

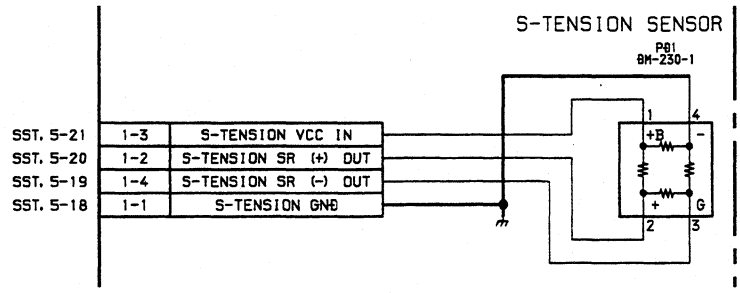
1-638-689-12 (1)
BVW-50
BVW-50P

DET-15 ; THREADING FG DETECTOR
TR-57 ; S-TENSION DETECTOR



DET-15

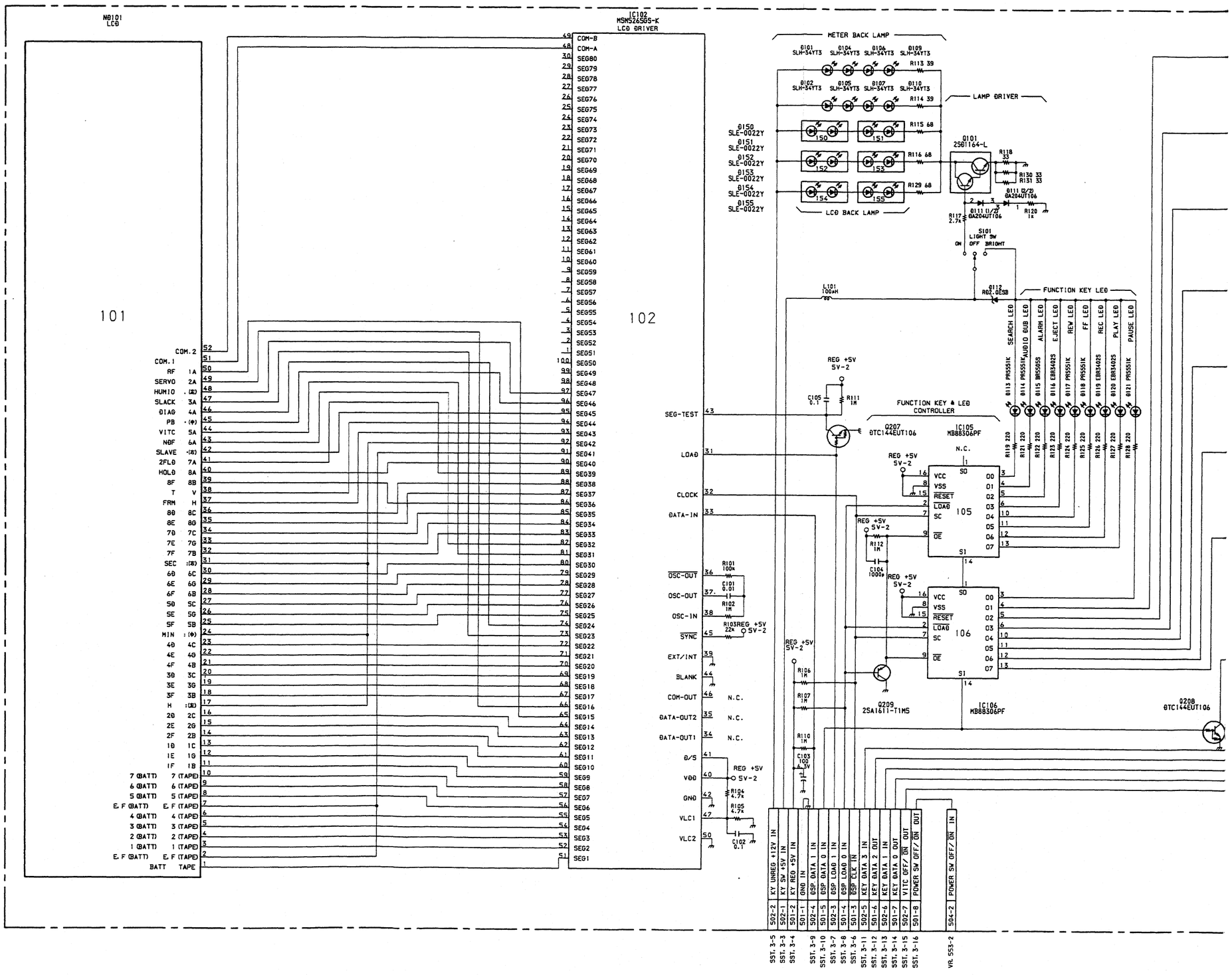
1-638-705-11 (1)
BVW-50
BVW-50P



TR-57

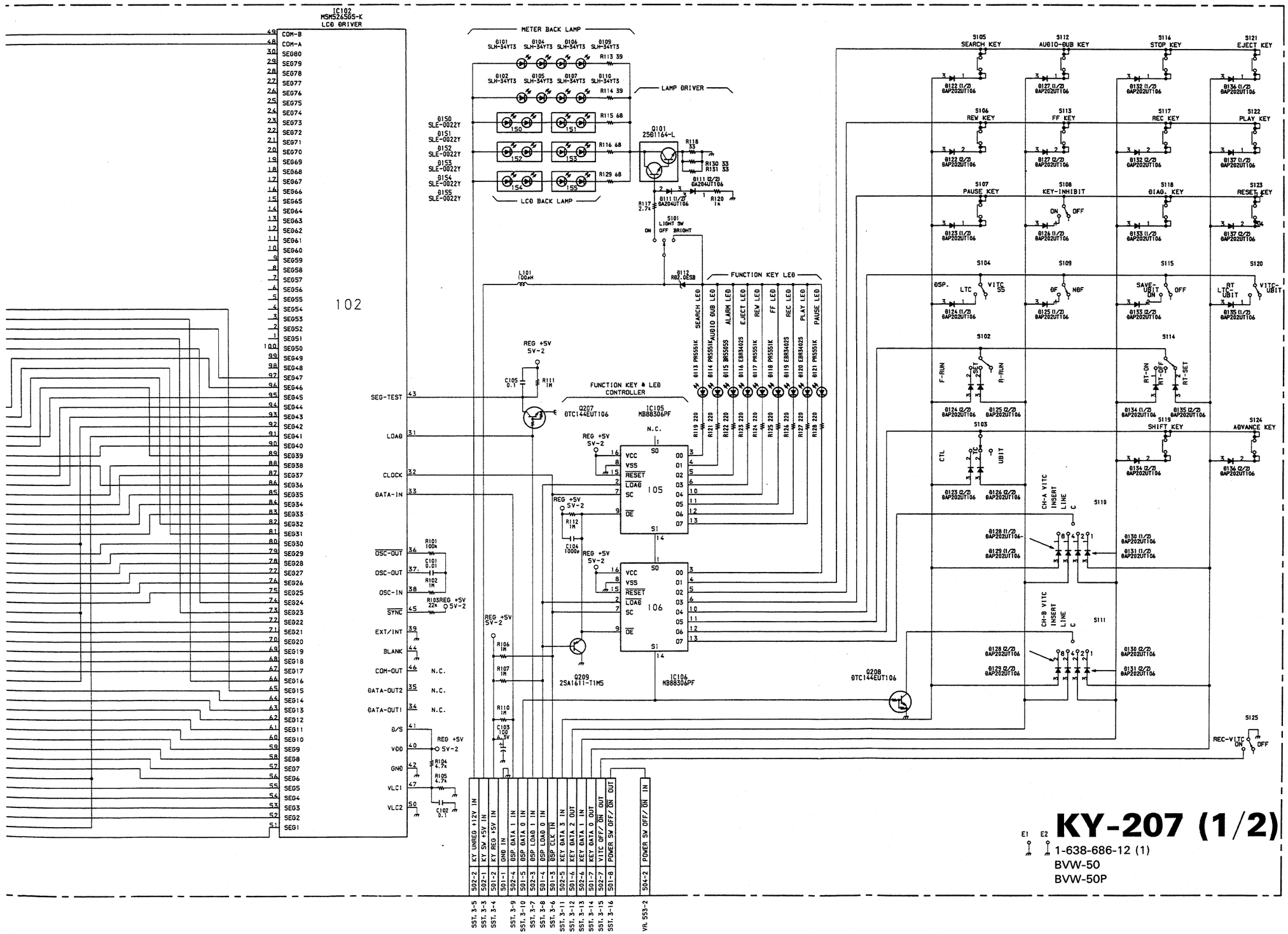
1-638-710-11 (1)
BVW-50
BVW-50P

KY-207 (1/2); FUNCTION KEYBOARD
LCD UNIT



A B C D E F G H

KY-207 (1/2)



KY-207 (1/2)

E1 E2

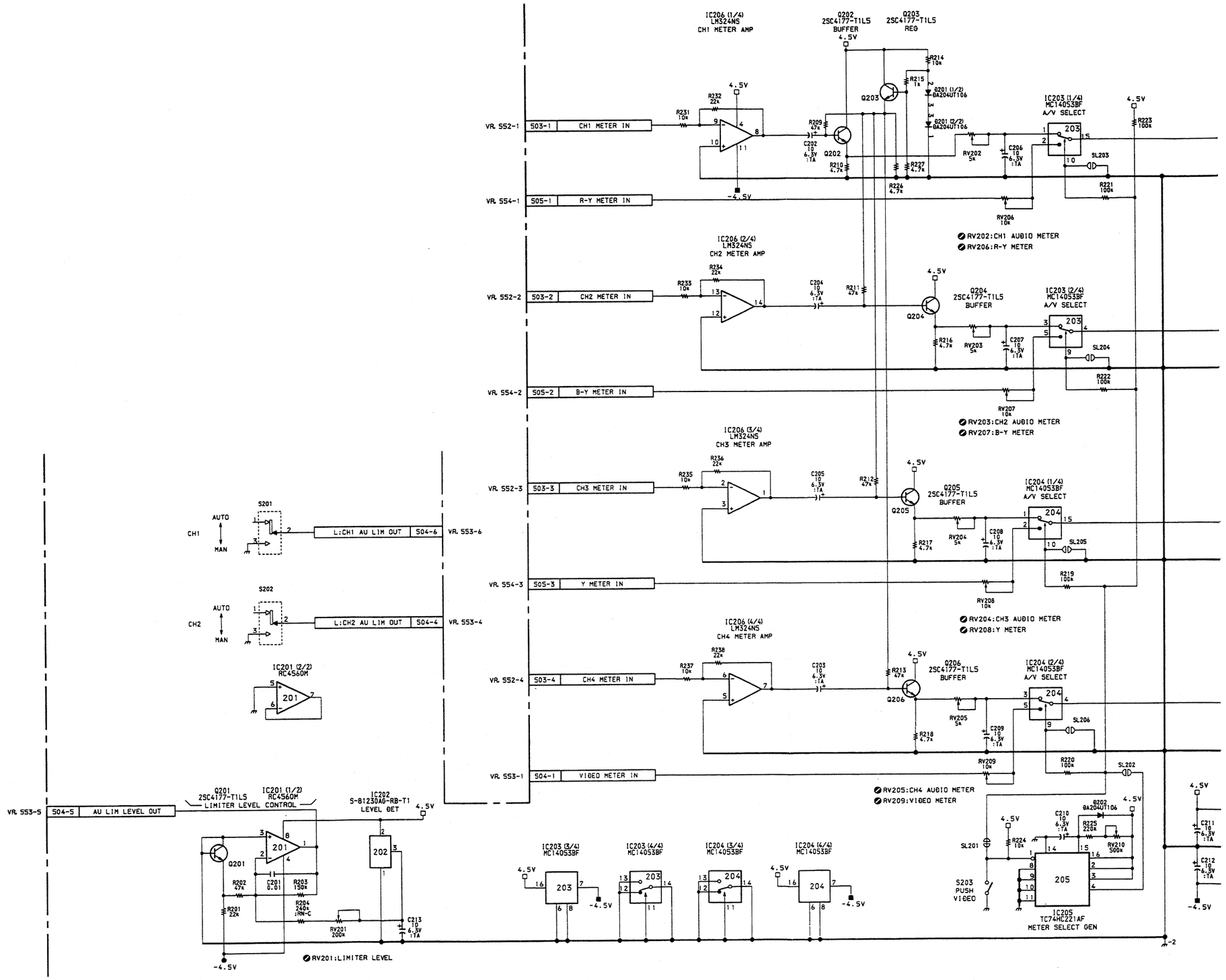
1-638-686-12 (1)

BVW-50

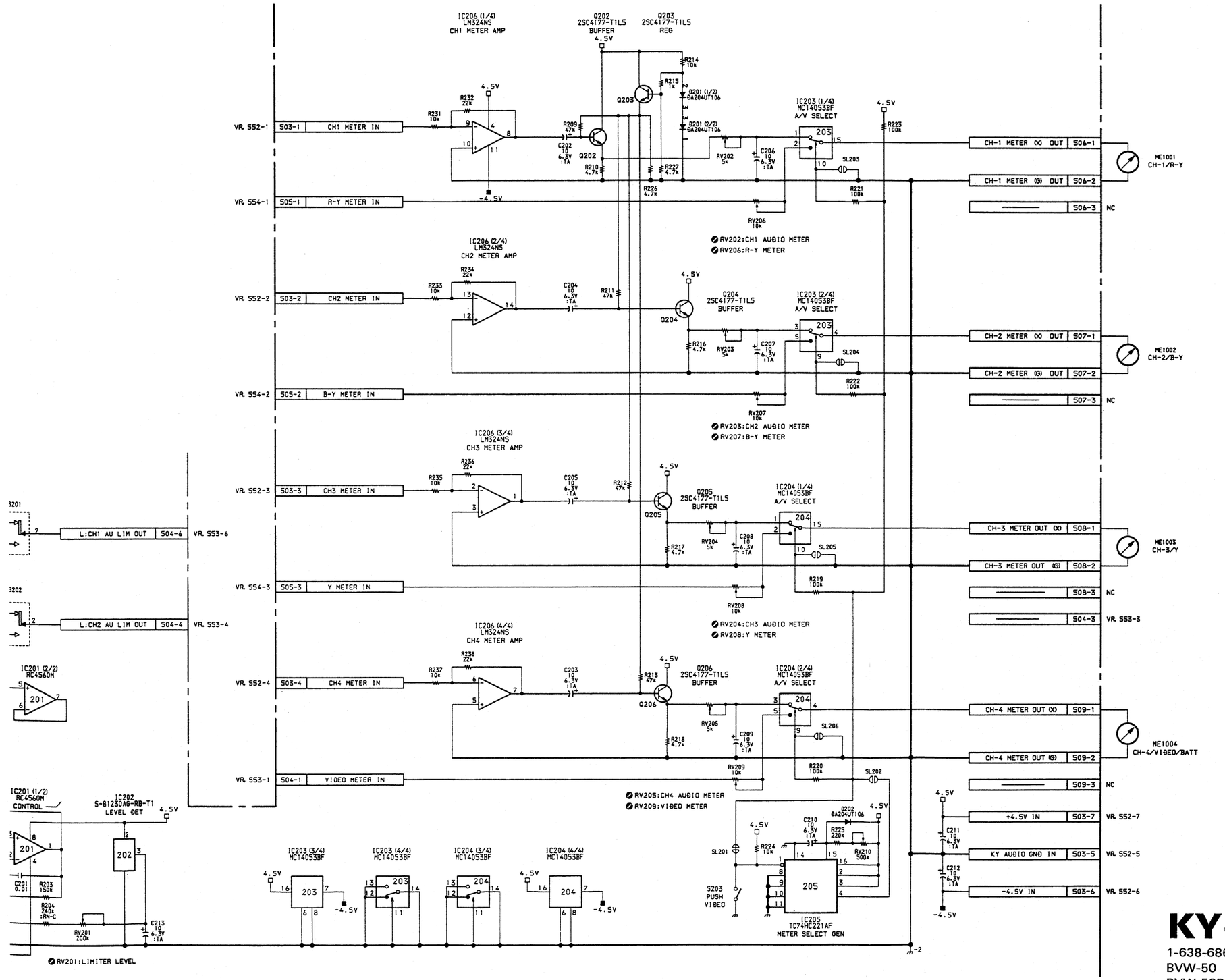
BVW-50P

11-73

KY-207 (2/2); AUDIO METER DRIVER



KY-207 (2/2)

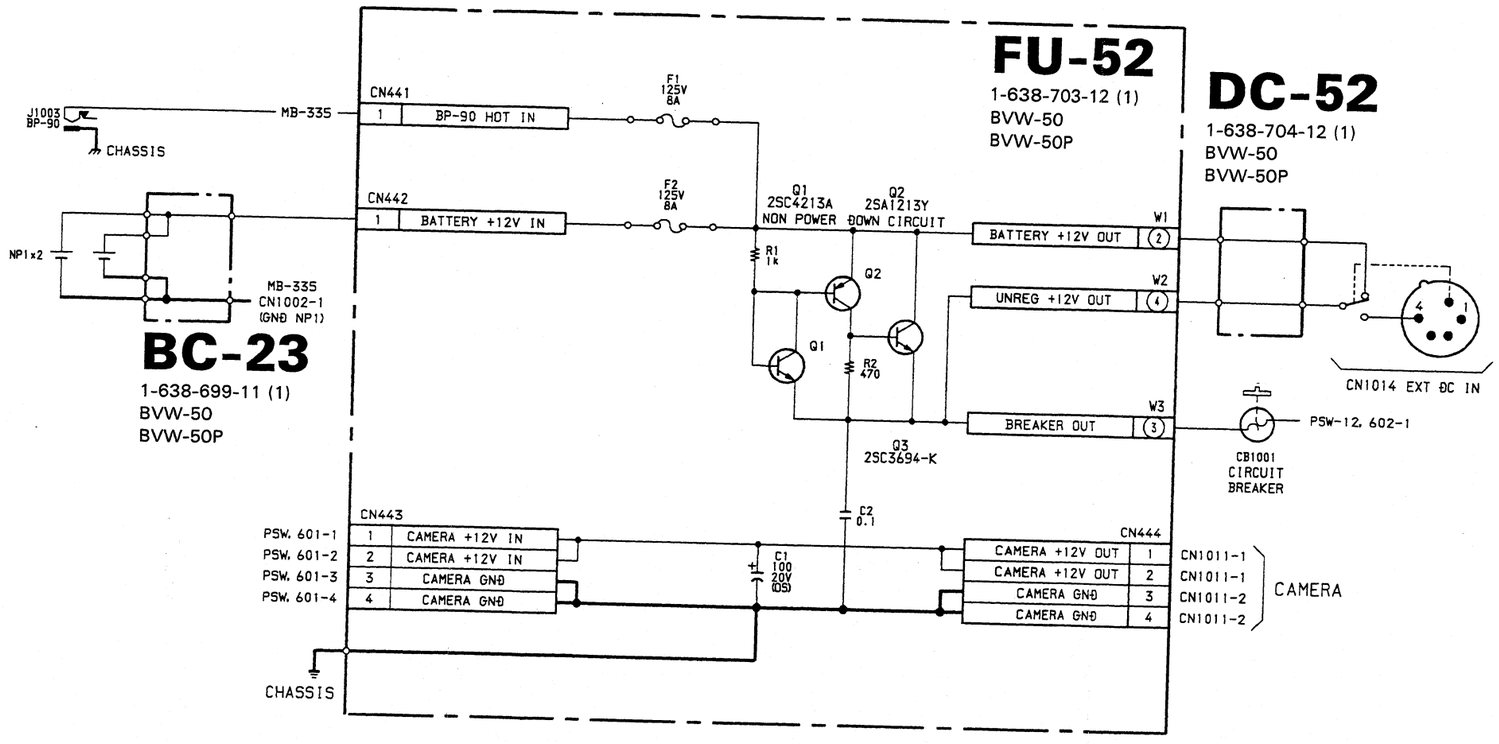


KY-207 (2/2)

1-638-686-12 (1)
BVW-50
BVW-50P

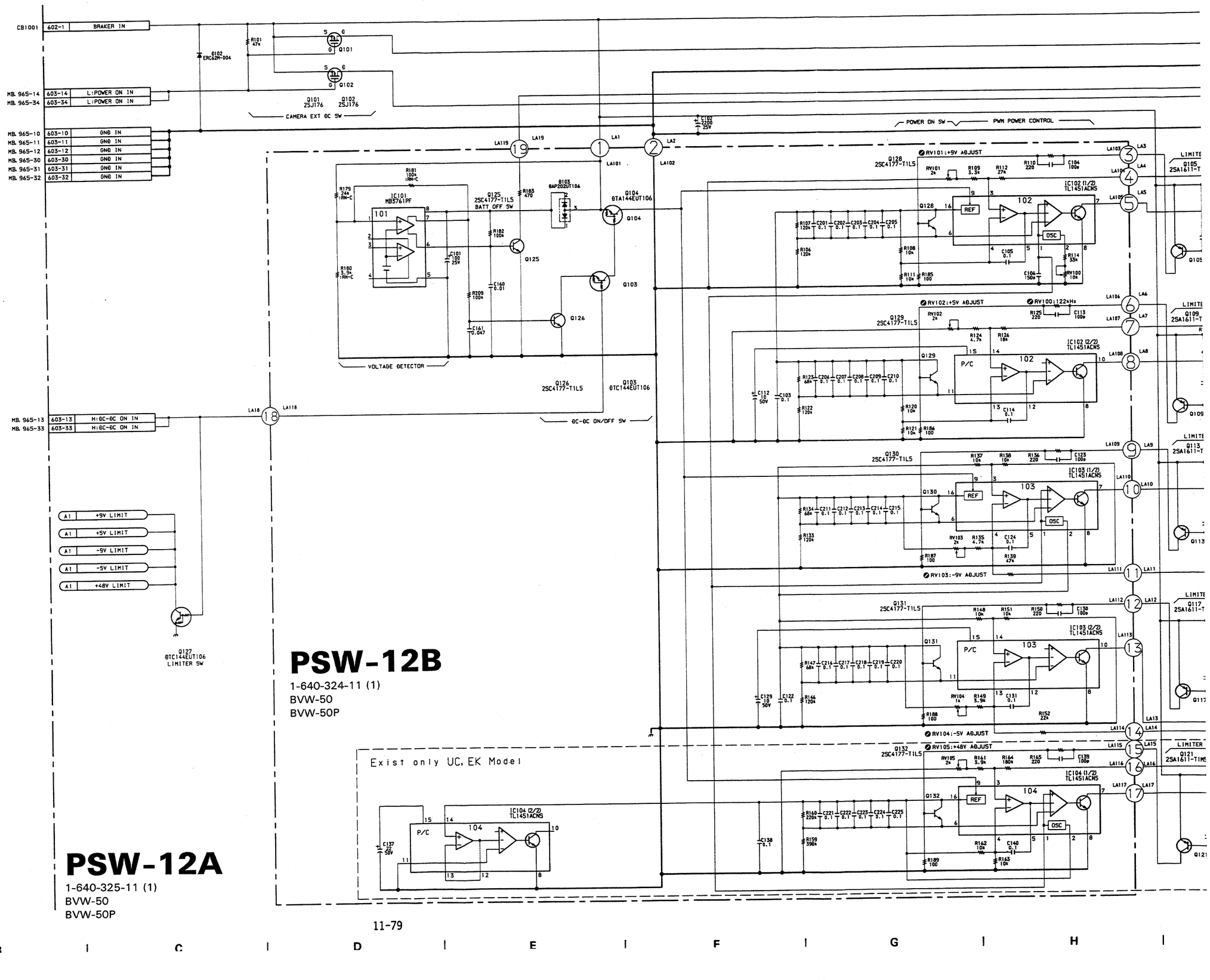
11-75

BC-23 ; BATTERY TERMINAL
DC-52 ; EXTERNAL DC IN
FU-52 ; FUSE



NOTE :
The ⚠-marked components are critical to sefety.
Replace only with same components as specified.

PSW-12A, 12B ; DC-DC CONVERTER

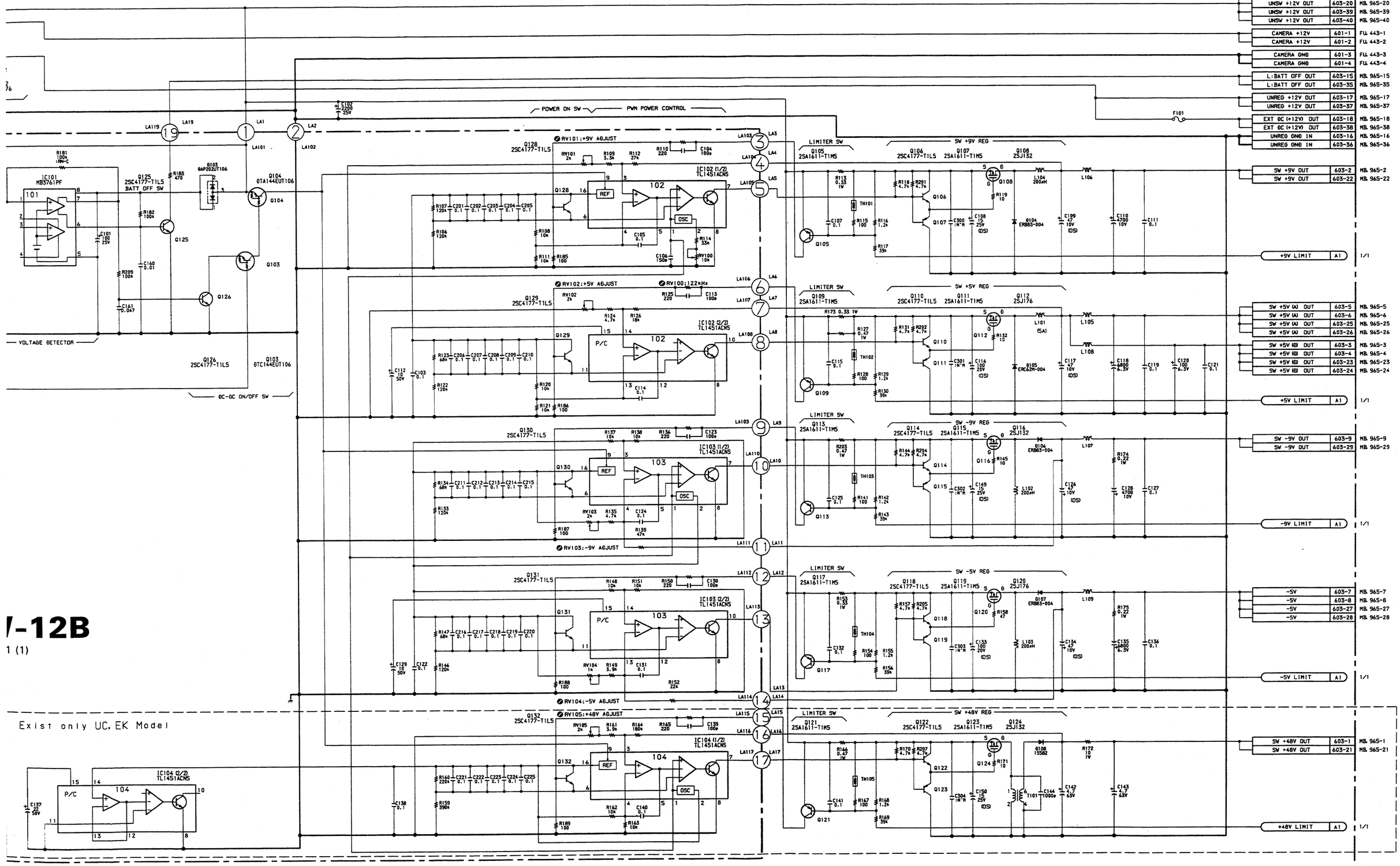


PSW-12B

1-640-324-11 (1)
BVW-50
BVW-50P

PSW-12A

1-640-325-11 (1)
BVW-50
BVW-50P


POWER ON SW
PWM POWER CONTROL
RV101:+9V ADJUST
RV102:+5V ADJUST
RV100:122kHz
RV103:-9V ADJUST
RV104:-5V ADJUST
RV105:+48V ADJUST
IC101 MB3761PF
IC102 (1/2) TL1451ACNS
IC102 (2/2) TL1451ACNS
IC103 (1/2) TL1451ACNS
IC103 (2/2) TL1451ACNS
IC104 (1/2) TL1451ACNS
IC104 (2/2) TL1451ACNS
Q125 2SC4177-T1L5 BATT OFF SW
Q104 DTA144EUT106
Q126 2SC4177-T1L5
Q103 DTC144EUT106
Q128 2SC4177-T1L5
Q129 2SC4177-T1L5
Q130 2SC4177-T1L5
Q131 2SC4177-T1L5
Q132 2SC4177-T1L5
D103 GAP202UT106
VOLTAGE DETECTOR
BC-DC ON/OFF SW
LIMITER SW
SW +9V REG
SW -9V REG
SW -5V REG
SW +48V REG
Q105 2SA1611-T1M5
Q106 2SC4177-T1L5
Q107 2SA1611-T1M5
Q108 2SJ132
Q109 2SA1611-T1M5
Q110 2SC4177-T1L5
Q111 2SA1611-T1M5
Q112 2SJ176
Q113 2SA1611-T1M5
Q114 2SC4177-T1L5
Q115 2SA1611-T1M5
Q116 2SJ132
Q117 2SA1611-T1M5
Q118 2SC4177-T1L5
Q119 2SA1611-T1M5
Q120 2SJ176
Q121 2SA1611-T1M5
Q122 2SC4177-T1L5
Q123 2SA1611-T1M5
Q124 2SJ132
F101
L101 (5A)
L102 200nH
L103 200nH
L104 200nH
L105
L106
L107
L108
L109
TH101
TH102
TH103
TH104
TH105
T101
D104 ERB83-004
D105 ERC62M-004
D107 ERB83-004
D108 1SS82
+9V LIMIT
+5V LIMIT
-9V LIMIT
-5V LIMIT
+48V LIMIT
UNSW +12V OUT 603-19 MB. 965-19
UNSW +12V OUT 603-20 MB. 965-20
UNSW +12V OUT 603-39 MB. 965-39
UNSW +12V OUT 603-40 MB. 965-40
CAMERA +12V 601-1 FIL 443-1
CAMERA +12V 601-2 FIL 443-2
CAMERA GND 601-3 FIL 443-3
CAMERA GND 601-4 FIL 443-4
L:BATT OFF OUT 603-15 MB. 965-15
L:BATT OFF OUT 603-35 MB. 965-35
UNREG +12V OUT 603-17 MB. 965-17
UNREG +12V OUT 603-37 MB. 965-37
EXT BC (+12V) OUT 603-18 MB. 965-18
EXT BC (+12V) OUT 603-38 MB. 965-38
UNREG GND IN 603-16 MB. 965-16
UNREG GND IN 603-36 MB. 965-36
SW +9V OUT 603-2 MB. 965-2
SW +9V OUT 603-22 MB. 965-22
SW +5V (A) OUT 603-5 MB. 965-5
SW +5V (A) OUT 603-6 MB. 965-6
SW +5V (A) OUT 603-25 MB. 965-25
SW +5V (A) OUT 603-26 MB. 965-26
SW +5V (D) OUT 603-3 MB. 965-3
SW +5V (D) OUT 603-4 MB. 965-4
SW +5V (D) OUT 603-23 MB. 965-23
SW +5V (D) OUT 603-24 MB. 965-24
SW -9V OUT 603-9 MB. 965-9
SW -9V OUT 603-29 MB. 965-29
-5V 603-7 MB. 965-7
-5V 603-8 MB. 965-8
-5V 603-27 MB. 965-27
-5V 603-28 MB. 965-28
SW +48V OUT 603-1 MB. 965-1
SW +48V OUT 603-21 MB. 965-21
Exist only UC, EK Model

MB-335 (1/2); MOTHER BOARD

CN951 2P (S-REEL) YEL

951-1	S-REEL ØRIVE (-) OUT
951-2	S-REEL ØRIVE (+) OUT

CN952 3P (S-BRAKE) REØ

952-1	S BRAKE ØN OUT
952-2	S BRAKE VCC OUT
952-3	S BRAKE OFF OUT

CN953 3P (PINCH) WHT

953-1	PINCH ØN OUT
953-2	PINCH OFF OUT
953-3	PINCH VCC OUT

CN957 7P (CS-26) BLK

957-1	L:CASS IN
957-2	CASS +5V OUT
957-3	L:CASS-UP IN
957-4	L:CASS-ØOWN IN
957-5	CASS GNØ OUT
957-6	CASS.ØRIVE FWØ OUT
957-7	CASS.ØRIVE REV OUT

CN954 4P (TR-57) YEL

954-1	S-TENSION GNØ OUT
954-2	S-TENSION SR (+) IN
954-3	S-TENSION VCC OUT
954-4	S-TENSION SR (-) IN

CN970 4P (AU-ERASE) REØ

970-1	CH1 AUØIO ERASE ØØ OUT
970-2	CH1 AUØIO ERASE (Y) OUT
970-3	CH2 AUØIO ERASE ØØ OUT
970-4	CH2 AUØIO ERASE (Y) OUT

CN955 3P (FE-11) BLK

955-1	FULL ERASE +10V OUT
955-2	GNØ OUT
955-3	——

CN948 4P (SR-50) WHT

948-1	GNØ OUT
948-2	SW +5V (A) OUT
948-3	PA Y SWP OUT
948-4	PA C SWP OUT

CN1002

(S)	BP-90 HOT OUT
(I)	BP-90 HOT IN

CN971 7P (CHECK) WHT

971-1	GNØ OUT
971-2	SW +9V OUT
971-3	SW +5V (Ø) OUT
971-4	SW +5V (A) OUT
971-5	SW -5V OUT
971-6	SW -9V OUT
971-7	UNREG +12V OUT

CN965 40P (PSW-1

965-1	SW +48V
965-2	SW +9V
965-3	SW +5V (E
965-4	SW +5V (E
965-5	SW +5V (A
965-6	SW +5V (A
965-7	SW -5V
965-8	SW -5V
965-9	SW -9V
965-10	GNØ I
965-11	GNØ I
965-12	GNØ I
965-13	H:ØC-ØC ØI
965-14	L:POWER ØI
965-15	L:BATT ØF
965-16	UNREG G
965-17	UNREG +12
965-18	EXT ØC (+1
965-19	UNSW +12
965-20	UNSW +12

CN923 9P (AU-142)

923-1	H:POWER ØN MUTE IN
923-2	L:CH1 CONFI IN
923-3	L:CH2 CONFI IN
923-4	——
923-5	CH1 AU ERASE ØØ IN
923-6	CH1 AU ERASE (Y) IN
923-7	CH2 AU ERASE ØØ IN
923-8	CH2 AU ERASE (Y) IN
923-9	FULL ERASE +10V IN

CN962 7P (VR-118)

962-1	CH4 LINE ØØ IN
962-2	LINE (G) OUT
962-3	CH1 LNG AUØIO ØØ OUT
962-4	CH2 LNG AUØIO ØØ OUT
962-5	CH3 AFM AUØIO ØØ OUT
962-6	CH4 AFM AUØIO ØØ OUT
962-7	VR CH1 PB/$\overline{EE}$ OUT

CN949 7P (KY-207) BLK

949-1	KY SW +5V OUT
949-2	KY UNREG +12V OUT
949-3	ØSP LOAØ 1 OUT
949-4	ØSP ØATA 1 OUT
949-5	KEY ØATA 3 IN
949-6	KEY ØATA 1 IN
949-7	VITC OFF/$\overline{ON}$ IN

CN956 3P (CTL HEAD) WHT

956-1	CTL HEAØ ØØ
956-2	CTL HEAØ (Y)
956-3	

CN958 2P (END) BLK

958-1	TAPE ENØ SENSOR ØØ IN
958-2	TAPE ENØ SENSOR (G) IN

CN959 2P (TC HEAD) REØ

959-1	TC HEAØ ØØ
959-2	TC HEAØ (G)

CN961 6P (VR-118)

961-1	AU +4.5V OUT
961-2	AU -4.5V OUT
961-3	LINE (G) IN
961-4	CH1 LINE ØØ IN
961-5	CH2 LINE ØØ IN
961-6	CH3 LINE ØØ IN

CN950 8P (KY-207) WHT

950-1	GNØ OUT
950-2	KY REG +5V OUT
950-3	ØSP CLK OUT
950-4	ØSP LOAØ Ø OUT
950-5	ØSP ØATA O OUT
950-6	KEY ØATA 2 IN
950-7	KEY ØATA Ø IN
950-8	POWER SW OFF/$\overline{ON}$/ IN

CN905 30P (SST-1)

905-1	CASS ØRIVE FWØ IN
905-2	CASS ØRIVE REV IN
905-3	L:REC OK OUT
905-4	H:METAL OUT
905-5	SNS +5V IN
905-6	L:LARGE CASSETTE OUT
905-7	H:TAPE THIN OUT
905-8	L:SMALL HAB OUT
905-9	L:UNTHREAØ ENØ OUT
905-10	L:THREAØ ENØ OUT
905-11	REG GNØ OUT
905-12	TC HEAØ (X)
905-13	TC HEAØ (G)
905-14	TAPE ENØ SENSOR ØØ OUT
905-15	TAPE ENØ SENSOR (G) OUT
905-16	CTL HEAØ ØØ
905-17	CTL HEAØ (Y)
905-18	S-TENSION GNØ IN
905-19	S-TENSION SR (-) OUT
905-20	S-TENSION SR (+) OUT
905-21	S-TENSION VCC IN
905-22	PINCH ØN IN
905-23	PINCH OFF IN
905-24	PINCH VCC IN
905-25	S BRAKE OFF IN
905-26	S BRAKE VCC IN
905-27	S BRAKE ØN IN
905-28	S-REEL ØRIVE (+) IN
905-29	S-REEL ØRIVE (-) IN
905-30	REG GNØ OUT

CN904 30P (SST-1)

904-1	ENCOØE VIØEO OUT
904-2	REC VITC IN
904-3	REF INT/$\overline{EXT}$ OUT
904-4	L:EØIT PRESET IN
904-5	PB FP2 OUT
904-6	PB FP1 OUT
904-7	RF NG/$\overline{OK}$ OUT
904-8	REC/REF FP2 OUT
904-9	REC/REF FP1 OUT
904-10	H:CARACTOR IN
904-11	L:WINØOW IN
904-12	L:HØ OUT
904-13	L:VØ OUT
904-14	$\overline{REC\text{-}SV\ REF}$ OUT
904-15	$\overline{ENCOØE\ SYNC}$ OUT
904-16	Y PB SYNC OUT
904-17	Y-ØØ PULSE OUT
904-18	C-ØØ PULSE OUT
904-19	Y SW PULSE IN
904-20	C SW PULSE IN
904-21	YA REC ON/$\overline{OFF}$ IN
904-22	YB REC ON/$\overline{OFF}$ IN
904-23	CA REC ON/$\overline{OFF}$ IN
904-24	CB REC ON/$\overline{OFF}$ IN
904-25	PSEUØØ-VØ IN
904-26	SV-VØ-IN
904-27	L:CASS OUT
904-28	CASS +5V IN
904-29	L:CASS-UP OUT
904-30	L:CASS-ØOWN OUT

CN903 30P (SST-1)

903-1	AU CH1 ON/MUTE IN
903-2	REG GNØ OUT
903-3	KY SW +5V IN
903-4	KY REG +5V IN
903-5	KY UNREG +12V IN
903-6	ØSP CLK IN
903-7	ØSP LOAØ 1 IN
903-8	ØSP LOAØ Ø IN
903-9	ØSP ØATA 1 IN
903-10	ØSP ØATA O IN
903-11	KEY ØATA 3 OUT
903-12	KEY ØATA 2 OUT
903-13	KEY ØATA 1 OUT
903-14	KEY ØATA Ø OUT
903-15	VITC OFF/$\overline{ON}$ OUT
903-16	POWER SW OFF/$\overline{ON}$ OUT
903-17	VIØEO ØATA IN
903-18	VIØEO CLK IN
903-19	VIØEO STB IN
903-20	REC 3. 4/$\overline{1.2}$ IN
903-21	REC STØ/$\overline{NONSTØ}$ IN
903-22	SAVE OFF/$\overline{ON}$ IN
903-23	VIØEO PB/$\overline{EE}$ IN
903-24	ENCOØE 3. 4/$\overline{1.2}$ IN
903-25	1Ø REGN/$\overline{THRU}$ IN
903-26	H-SHIFT ON/ $\overline{OFF}$IN
903-27	ØOC OFF/$\overline{ON}$ IN
903-28	H:TAPE FF&REW IN
903-29	TAPE FWØ/$\overline{REV}$ IN
903-30	VIØEO ON/$\overline{MUTE}$ IN

CN902 30P (SST-1)

902-1	EXT LTC IN ØØ OUT
902-2	EXT LTC OUT ØØ IN
902-3	RX-A OUT
902-4	RX-B OUT
902-5	TX-A IN
902-6	TX-B IN
902-7	VTR SAVE/MON OUT
902-8	VTR START/ $\overline{STOP}$ OUT
902-9	REC SYNC OUT
902-10	BATT INØ IN
902-11	REC TALLY IN
902-12	AU ØUB CH2/$\overline{CH1}$ OUT
902-13	L:COMPONENT OUT
902-14	H:VIØEO EXIST OUT
902-15	CAMERA/$\overline{LINE}$ OUT
902-16	CHARA OFF/$\overline{ON}$ OUT
902-17	CF OFF/$\overline{ON}$ OUT
902-18	L:PB SW ON OUT
902-19	L:SAVE SW ON OUT
902-20	LTC CANCEL IN
902-21	ALARM TONE IN
902-22	AUØIO ØUB/$\overline{REC}$ IN
902-23	AU CH2 REC ON/$\overline{OFF}$ IN
902-24	AU CH1 REC ON/$\overline{OFF}$ IN
902-25	AU-OUT SOFT/$\overline{NOR}$ IN
902-26	AU AFM PB/$\overline{EE}$ IN
902-27	AU CH2 PB/$\overline{EE}$ IN
902-28	AU CH1 PB/$\overline{EE}$ IN
902-29	AU AFM ON/$\overline{MUTE}$ IN
902-30	AU CH2 ON/$\overline{MUTE}$ IN

CN922 30P (AU-142)

922-1	AFM RF ØØ OUT
922-2	AFM RF (G) OUT
922-3	REC AFM ØØ IN
922-4	REC AFM (G) IN
922-5	PA C SWP OUT
922-6	LTC CANCEL OUT
922-7	ALARM TONE OUT
922-8	AUØIO ØUB/$\overline{REC}$ OUT
922-9	AU CH1 REC ON/$\overline{OFF}$ OUT
922-10	AU CH2 REC ON/$\overline{OFF}$ OUT
922-11	AU-OUT SOFT/$\overline{NOR}$ OUT
922-12	AU AFM PB/ $\overline{EE}$ OUT
922-13	AU CH2 PB/ $\overline{EE}$ OUT
922-14	AU CH1 PB/ $\overline{EE}$ OUT
922-15	AU AFM ON/$\overline{MUTE}$ OUT
922-16	AU CH2 ON/$\overline{MUTE}$ OUT
922-17	AU CH1 ON/$\overline{MUTE}$ OUT
922-18	VR CH1 PB/$\overline{EE}$ IN
922-19	CH3 LINE ØØ OUT
922-20	CH2 LINE ØØ OUT
922-21	CH1 LINE ØØ OUT
922-22	LINE (G) OUT
922-23	AU -4.5V IN
922-24	AU +4.5V IN
922-25	CH4 LINE ØØ OUT
922-26	LINE (G) IN
922-27	CH1 LNG AUØIO ØØ IN
922-28	CH2 LNG AUØIO ØØ IN
922-29	CH3 AFM AUØIO ØØ IN
922-30	CH4 AFM AUØIO ØØ IN

CN914 30P (VRP-1)

916-1	RF NG/$\overline{OK}$ IN
916-2	REC/REF FP2 IN
916-3	REC/REF FP1 IN
916-4	H:CARACTOR OUT
916-5	L:WINØOW OUT
916-6	L:HØ IN
916-7	L:VØ IN
916-8	$\overline{REC\text{-}SV\ REF}$ IN
916-9	ØOC OFF/ $\overline{ON}$ OUT
916-10	H:TAPE FF&REW OUT
916-11	TAPE FWØ/$\overline{REV}$ OUT
916-12	VIØEO ON/$\overline{MUTE}$ OUT
916-13	$\overline{ENCOØE\ SYNC}$ IN
916-14	Y PB SYNC IN
916-15	Y-ØØ PULSE IN
916-16	C-ØØ PULSE IN
916-17	Y SW PULSE OUT
916-18	C SW PULSE OUT
916-19	YA REC ON/$\overline{OFF}$ OUT
916-20	YB REC ON/$\overline{OFF}$ OUT
916-21	CA REC ON/$\overline{OFF}$ OUT
916-22	CB REC ON/$\overline{OFF}$ OUT
916-23	PSEUØØ-VØ OUT
916-24	SV-VØ OUT
916-25	PA C SWP IN
916-26	PA Y SWP IN
916-27	REC AFM (G) OUT
916-28	REC AFM ØØ OUT
916-29	AFM RF (G) IN
916-30	AFM RF ØØ IN

CN915 30P (VRP-1)

915-1	GNØ (G) OUT
915-2	GNØ (G) OUT
915-3	SW +5V (A) OUT
915-4	SW -5V OUT
915-5	SW +9V OUT
915-6	GNØ (A) OUT
915-7	GNØ (A) OUT
915-8	SW +5V (G) OUT
915-9	SW +5V (G) OUT
915-10	SW +5V (A) OUT
915-11	SW -9V OUT
915-12	RFU VIØEO ØØ IN
915-13	L:CONFI ON OUT
915-14	H:METAL OUT
915-15	VIØEO ØATA OUT
915-16	VIØEO CLK OUT
915-17	VIØEO STB OUT
915-18	REC 3. 4/ $\overline{1.2}$ OUT
915-19	REC STØ /$\overline{NON\ STØ}$ OUT
915-20	SAVE OFF/ $\overline{ON}$ OUT
915-21	VIØEO PB/$\overline{EE}$ OUT
915-22	ENCOØE 3. 4/$\overline{1.2}$ OUT
915-23	1Ø REG/ $\overline{THRU}$ OUT
915-24	H SHIFT ON/ $\overline{OFF}$ OUT
915-25	ENCOØE VIØEO IN
915-26	REC VITC OUT
915-27	REF INT/$\overline{EXT}$ IN
915-28	L:EØIT PRESET OUT
915-29	PB FP2 IN
915-30	PB FP1 IN

CN921 20P (AU-142)

921-1	L:CONFI ON OUT
921-2	L:ØOLBY ON OUT
921-3	CH1 CONFI ØØ IN
921-4	CH2 CONFI ØØ IN
921-5	ATT ALARM TONE IN
921-6	VR CH2 PB/$\overline{EE}$ IN
921-7	UNREG +12V OUT
921-8	UNREG +12V OUT
921-9	SW -9V OUT
921-10	SW -5V OUT
921-11	SW -5V OUT
921-12	SW +5V (A) OUT
921-13	SW +5V (A) OUT
921-14	SW +9V OUT
921-15	MIC AMP GNØ OUT
921-16	MIC AMP GNØ OUT
921-17	GNØ OUT
921-18	GNØ OUT
921-19	VR AFM PB/EE IN
921-20	H:METAL OUT

MB-335 (1/2)

CN970 4P **(AU-ERASE)** RED

970-1	CH1 AUDIO ERASE ∞ OUT
970-2	CH1 AUDIO ERASE (Y) OUT
970-3	CH2 AUDIO ERASE ∞ OUT
970-4	CH2 AUDIO ERASE (Y) OUT

CN955 3P **(FE-11)** BLK — C2 100 20V ELS

955-1	FULL ERASE +10V OUT
955-2	GND OUT
955-3	——

CN948 4P **(SR-50)** WHT — C3 47 10V ELS

948-1	GND OUT
948-2	SW +5V (A) OUT
948-3	PA Y SWP OUT
948-4	PA C SWP OUT

BLK

SOR (X) IN	
SOR (G) IN	

CN959 2P **(TC HEAD)** RED

959-1	TC HEAD ∞
959-2	TC HEAD (G)

CN904 30P **(SST-1)**

904-1	ENCODE VIDEO OUT
904-2	REC VITC IN
904-3	REF INT/EXT OUT
904-4	L:EDIT PRESET IN
904-5	PB FP2 OUT
904-6	PB FP1 OUT
904-7	RF NG/OK OUT
904-8	REC/REF FP2 OUT
904-9	REC/REF FP1 OUT
904-10	H:CARACTOR IN
904-11	L:WINDOW IN
904-12	L:H∅ OUT
904-13	L:V∅ OUT
904-14	REC-SV REF OUT
904-15	ENCODE SYNC OUT
904-16	Y PB SYNC OUT
904-17	Y-∅∅ PULSE OUT
904-18	C-∅∅ PULSE OUT
904-19	Y SW PULSE IN
904-20	C SW PULSE IN
904-21	YA REC ON/OFF IN
904-22	YB REC ON/OFF IN
904-23	CA REC ON/OFF IN
904-24	CB REC ON/OFF IN
904-25	PSEUDO-V∅ IN
904-26	SV-V∅-IN
904-27	L:CASS OUT
904-28	CASS +5V IN
904-29	L:CASS-UP OUT
904-30	L:CASS-DOWN OUT

(AU-142)

AFM RF ∞ OUT	
AFM RF (G) OUT	
REC AFM ∞ IN	
REC AFM (G) IN	
PA C SWP OUT	
LTC CANCEL OUT	
ALARM TONE OUT	
AUDIO OUB/REC OUT	
AU CH1 REC ON/OFF OUT	
AU CH2 REC ON/OFF OUT	
AU-OUT SOFT/NOR OUT	
AU AFM PB/EE OUT	
AU CH2 PB/EE OUT	
AU CH1 PB/EE OUT	
AU AFM ON/MUTE OUT	
AU CH2 ON/MUTE OUT	
AU CH1 ON/MUTE OUT	
VR CH1 PB/EE IN	
CH3 LINE ∞ OUT	
CH2 LINE ∞ OUT	
CH1 LINE ∞ OUT	
LINE (G) OUT	
AU -4.5V IN	
AU +4.5V IN	
CH4 LINE ∞ OUT	
LINE (G) IN	
CH1 LNG AUDIO ∞ IN	
CH2 LNG AUDIO ∞ IN	
CH3 AFM AUDIO ∞ IN	
CH4 AFM AUDIO ∞ IN	

CN916 50P **(VRP-1)**

916-1	RF NG/OK IN
916-2	REC/REF FP2 IN
916-3	REC/REF FP1 IN
916-4	H:CARACTOR OUT
916-5	L:WINDOW OUT
916-6	L:H∅ IN
916-7	L:V∅ IN
916-8	REC-SV REF IN
916-9	∅∅C OFF/ON OUT
916-10	H:TAPE FF&REW OUT
916-11	TAPE FWD/REV OUT
916-12	VIDEO ON/MUTE OUT
916-13	ENCODE SYNC IN
916-14	Y PB SYNC IN
916-15	Y-∅∅ PULSE IN
916-16	C-∅∅ PULSE IN
916-17	Y SW PULSE OUT
916-18	C SW PULSE OUT
916-19	YA REC ON/OFF OUT
916-20	YB REC ON/OFF OUT
916-21	CA REC ON/OFF OUT
916-22	CB REC ON/OFF OUT
916-23	PSEUDO-V∅ OUT
916-24	SV-V∅ OUT
916-25	PA C SWP IN
916-26	PA Y SWP IN
916-27	REC AFM (G) OUT
916-28	REC AFM ∞ OUT
916-29	AFM RF (G) IN
916-30	AFM RF ∞ IN

CN903 30P **(SST-1)**

903-1	AU CH1 ON/MUTE IN
903-2	REG GND OUT
903-3	KY SW +5V IN
903-4	KY REG +5V IN
903-5	KY UNREG +12V IN
903-6	∅SP CLK IN
903-7	∅SP LOAD 1 IN
903-8	∅SP LOAD 0 IN
903-9	∅SP DATA 1 IN
903-10	∅SP DATA 0 IN
903-11	KEY DATA 3 OUT
903-12	KEY DATA 2 OUT
903-13	KEY DATA 1 OUT
903-14	KEY DATA 0 OUT
903-15	VITC OFF/ON OUT
903-16	POWER SW OFF/ON OUT
903-17	VIDEO DATA IN
903-18	VIDEO CLK IN
903-19	VIDEO STB IN
903-20	REC 3. 4/1. 2 IN
903-21	REC STD/NONSTD IN
903-22	SAVE OFF/ON IN
903-23	VIDEO PB/EE IN
903-24	ENCODE 3. 4/1. 2 IN
903-25	10 REGN/THRU IN
903-26	H-SHIFT ON/OFFIN
903-27	∅∅C OFF/ON IN
903-28	H:TAPE FF&REW IN
903-29	TAPE FWD/REV IN
903-30	VIDEO ON/MUTE IN

CN915 30P **(VRP-1)**

915-1	GND (D) OUT
915-2	GND (D) OUT
915-3	SW +5V (A) OUT
915-4	SW -5V OUT
915-5	SW +9V OUT
915-6	GND (A) OUT
915-7	GND (A) OUT
915-8	SW +5V (D) OUT
915-9	SW +5V (D) OUT
915-10	SW +5V (A) OUT
915-11	SW -9V OUT
915-12	RFU VIDEO ∞ IN
915-13	L:CONFI ON OUT
915-14	H:METAL OUT
915-15	VIDEO DATA OUT
915-16	VIDEO CLK OUT
915-17	VIDEO STB OUT
915-18	REC 3. 4/1.2 OUT
915-19	REC STD /NON STD OUT
915-20	SAVE OFF/ ON OUT
915-21	VIDEO PB/EE OUT
915-22	ENCODE 3. 4/1.2 OUT
915-23	10 REG/ THRU OUT
915-24	H SHIFT ON/ OFF OUT
915-25	ENCODE VIDEO IN
915-26	REC VITC OUT
915-27	REF INT/EXT IN
915-28	L:EDIT PRESET OUT
915-29	PB FP2 IN
915-30	PB FP1 IN

CN923 9P **(AU-142)**

923-1	H:POWER ON MUTE IN
923-2	L:CH1 CONFI IN
923-3	L:CH2 CONFI IN
923-4	——
923-5	CH1 AU ERASE ∞ IN
923-6	CH1 AU ERASE (Y) IN
923-7	CH2 AU ERASE ∞ IN
923-8	CH2 AU ERASE (Y) IN
923-9	FULL ERASE +10V IN

(9)	BP-90 HOT OUT
(1)	BP-90 HOT IN

CN971 7P **(CHECK)** WHT

971-1	GND OUT
971-2	SW +9V OUT
971-3	SW +5V (D) OUT
971-4	SW +5V (A) OUT
971-5	SW -5V OUT
971-6	SW -9V OUT
971-7	UNREG +12V OUT

CN1002 — CN1001

1	GND (NP-1)

1	GND (EXT ∅C)

CN965 40P **(PSW-12)**

965-1	SW +48V IN	965-21	SW +48V IN
965-2	SW +9V IN	965-22	SW +9V IN
965-3	SW +5V (D) IN	965-23	SW +5V (D) IN
965-4	SW +5V (D) IN	965-24	SW +5V (D) IN
965-5	SW +5V (A) IN	965-25	SW +5V (A) IN
965-6	SW +5V (A) IN	965-26	SW +5V (A) IN
965-7	SW -5V IN	965-27	SW -5V IN
965-8	SW -5V IN	965-28	SW -5V IN
965-9	SW -9V IN	965-29	SW -9V IN
965-10	GND IN	965-30	GND IN
965-11	GND IN	965-31	GND IN
965-12	GND IN	965-32	GND IN
965-13	H:∅C-∅C ON OUT	965-33	H:∅C-∅C ON OUT
965-14	L:POWER ON OUT	965-34	L:POWER ON OUT
965-15	L:BATT OFF IN	965-35	L:BATT OFF IN
965-16	UNREG GND	965-36	UNREG GND
965-17	UNREG +12V IN	965-37	UNREG +12V IN
965-18	EXT ∅C (+12V) IN	965-38	EXT ∅C (+12V) IN
965-19	UNSW +12V IN	965-39	UNSW +12V IN
965-20	UNSW +12V IN	965-40	UNSW +12V IN

CN902 30P **(SST-1)**

902-1	EXT LTC IN ∞ OUT
902-2	EXT LTC OUT ∞ IN
902-3	RX-A OUT
902-4	RX-B OUT
902-5	TX-A IN
902-6	TX-B IN
902-7	VTR SAVE/MON OUT
902-8	VTR START/ STOP OUT
902-9	REC SYNC OUT
902-10	BATT IND IN
902-11	REC TALLY IN
902-12	AU ∅UB CH2/CH1 OUT
902-13	L:COMPONENT OUT
902-14	H:VIDEO EXIST OUT
902-15	CAMERA/LINE OUT
902-16	CHARA OFF/ON OUT
902-17	CF OFF/ON OUT
902-18	L:PB SW ON OUT
902-19	L:SAVE SW ON OUT
902-20	LTC CANCEL IN
902-21	ALARM TONE IN
902-22	AUDIO ∅UB/REC IN
902-23	AU CH2 REC ON/ OFF IN
902-24	AU CH1 REC ON/ OFF IN
902-25	AU-OUT SOFT/ NOR IN
902-26	AU AFM PB/EE IN
902-27	AU CH2 PB/EE IN
902-28	AU CH1 PB/EE IN
902-29	AU AFM ON/MUTE IN
902-30	AU CH2 ON/MUTE IN

CN921 20P **(AU-142)**

921-1	L:CONFI ON OUT
921-2	L:∅OLBY ON OUT
921-3	CH1 CONFI ∞ IN
921-4	CH2 CONFI ∞ IN
921-5	ATT ALARM TONE IN
921-6	VR CH2 PB/EE IN
921-7	UNREG +12V OUT
921-8	UNREG +12V OUT
921-9	SW -9V OUT
921-10	SW -5V OUT
921-11	SW -5V OUT
921-12	SW +5V (A) OUT
921-13	SW +5V (A) OUT
921-14	SW +9V OUT
921-15	MIC AMP GND OUT
921-16	MIC AMP GND OUT
921-17	GND OUT
921-18	GND OUT
921-19	VR AFM PB/EE IN
921-20	H:METAL OUT

CN901 30P **(SST-1)**

901-1	∅RUM ∅RIVE ∞ IN
901-2	∅RUM ∅RIVE (G) IN
901-3	T BRAKE OFF IN
901-4	T BRAKE VCC IN
901-5	T BRAKE ON IN
901-6	T-REEL ∅RIVE (+) IN
901-7	T-REEL ∅RIVE (-) IN
901-8	THREAD ∅RIVE REW IN
901-9	THREAD ∅RIVE FWD IN
901-10	——
901-11	THREAD FG OUT
901-12	THREAD FG (-) IN
901-13	THREAD FG VCC IN
901-14	T-TOP SENSOR (G) OUT
901-15	T-TOP SENSOR ∞ OUT
901-16	REG GND OUT
901-17	REG GND OUT
901-18	UNREG GND OUT
901-19	UNREG GND OUT
901-20	UNSW +12V OUT
901-21	UNSW +12V OUT
901-22	SW +5V (D) OUT
901-23	SW -5V OUT
901-24	L:BATT OFF OUT
901-25	L:POWER ON IN
901-26	H:∅C-∅C ON IN
901-27	——
901-28	——
901-29	——
901-30	REG +5V IN

CN941 3P **(DR-63)** WHT — C1 100 20V ELS

941-1	GND OUT
941-2	∅RUM ∅RIVE (G) OUT
941-3	∅RUM ∅RIVE ∞ OUT

CN943 2P **(T-REEL)** YEL

943-1	T-REEL ∅RIVE (-) OUT
943-2	T-REEL ∅RIVE (+) OUT

CN940 2P **(TOP B)** BLK

940-1	TAPE TOP B-SENSOR (G) IN
940-2	TAPE TOP B-SENSOR ∞ IN

CN945 3P **(DET-15)** YEL

945-1	THREAD FG VCC OUT
945-2	THREAD FG IN
945-3	THREAD FG (-) OUT

CN942 5P **(T-BRAKE)** RED

942-1	T BRAKE ON OUT
942-2	T BRAKE VCC OUT
942-3	T BRAKE OFF OUT

CN944 2P **(TOP A)** WHT

944-1	TAPE TOP A-SENSOR (G) IN
944-2	TAPE TOP A-SENSOR ∞ IN

CN946 2P **(TH-MOT)** RED

946-1	THREAD ∅RIVE REW OUT
946-2	THREAD ∅RIVE FWD OUT

CN947 5P **(SE-158)**

947-1	L:SMALL HAB IN
947-2	L:UNTHREAD END IN
947-3	L:THREAD END IN
947-4	L:LARGE CASSETTE IN
947-5	H:TAPE THIN IN
947-6	REG GND OUT
947-7	SNS +5V OUT
947-8	L:REC OK IN
947-9	H:METAL IN

CN926 8P **(CP-164)**

926-1	AU ∅UB CH2/CH1 IN
926-2	L:SAVE SW ON IN
926-3	L:PB SW ON IN
926-4	CF OFF/ON IN
926-5	TX-B OUT
926-6	TX-A OUT
926-7	RX-B IN
926-8	RX-A IN

CN927 9P **(CP-164)**

927-1	RFU VIDEO ∞ OUT
927-2	L:CH2 CONFI OUT
927-3	L:CH1 CONFI OUT
927-4	H:POWER ON MUTE OUT
927-5	VTR SAVE/MON IN
927-6	UNREG +12V OUT
927-7	SW +5V (A) OUT
927-8	SW +48V OUT
927-9	RFU VIDEO (G) OUT

CN928 15P **(CP-164)**

928-1	VR CH2 PB/EE OUT
928-2	VR AFM PB/EE OUT
928-3	L:CONFI ON IN
928-4	L:∅OLBY ON IN
928-5	CH1 CONFI ∞ OUT
928-6	CH2 CONFI ∞ OUT
928-7	ATT ALARM TONE OUT
928-8	SW +5V (A) OUT
928-9	SW -5V OUT
928-10	MIC AMP GND IN
928-11	GND OUT
928-12	SW +9V OUT
928-13	SW -9V OUT

CN930 3P **(DC-OUT)**

930-1	EXT ∅C (+12V) OUT
930-2	——
930-3	GND OUT

CN925 6P **(CC-47)**

925-1	REG +5V OUT
925-2	CAMERA/LINE IN
925-3	H:VIDEO EXIST IN
925-4	REC SYNC IN
925-5	L:COMPONENT IN
925-6	CHARA OFF/ON IN

CN924 5P **(CON-18)**

924-1	EXT LTC OUT ∞ OUT
924-2	EXT LTC OUT (G) OUT
924-3	EXT LTC IN ∞ IN
924-4	EXT LTC IN (G) IN
924-5	——

CN929 4P **(CAM-CON)**

929-1	VTR SAVE/MON IN
929-2	REC TALLY OUT
929-3	BATT IND OUT
929-4	VTR START/STOP IN

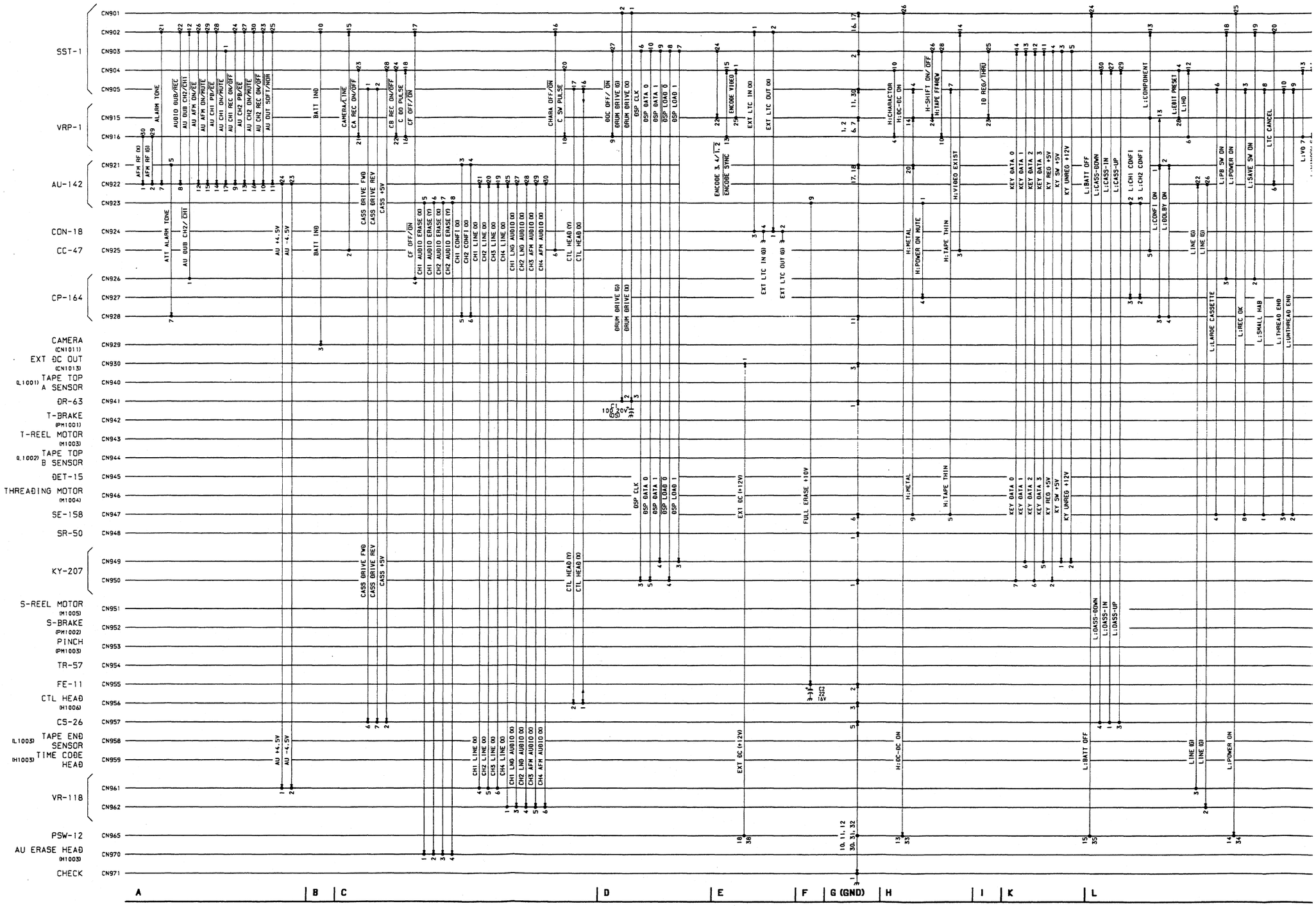
MB-335 (1/2)

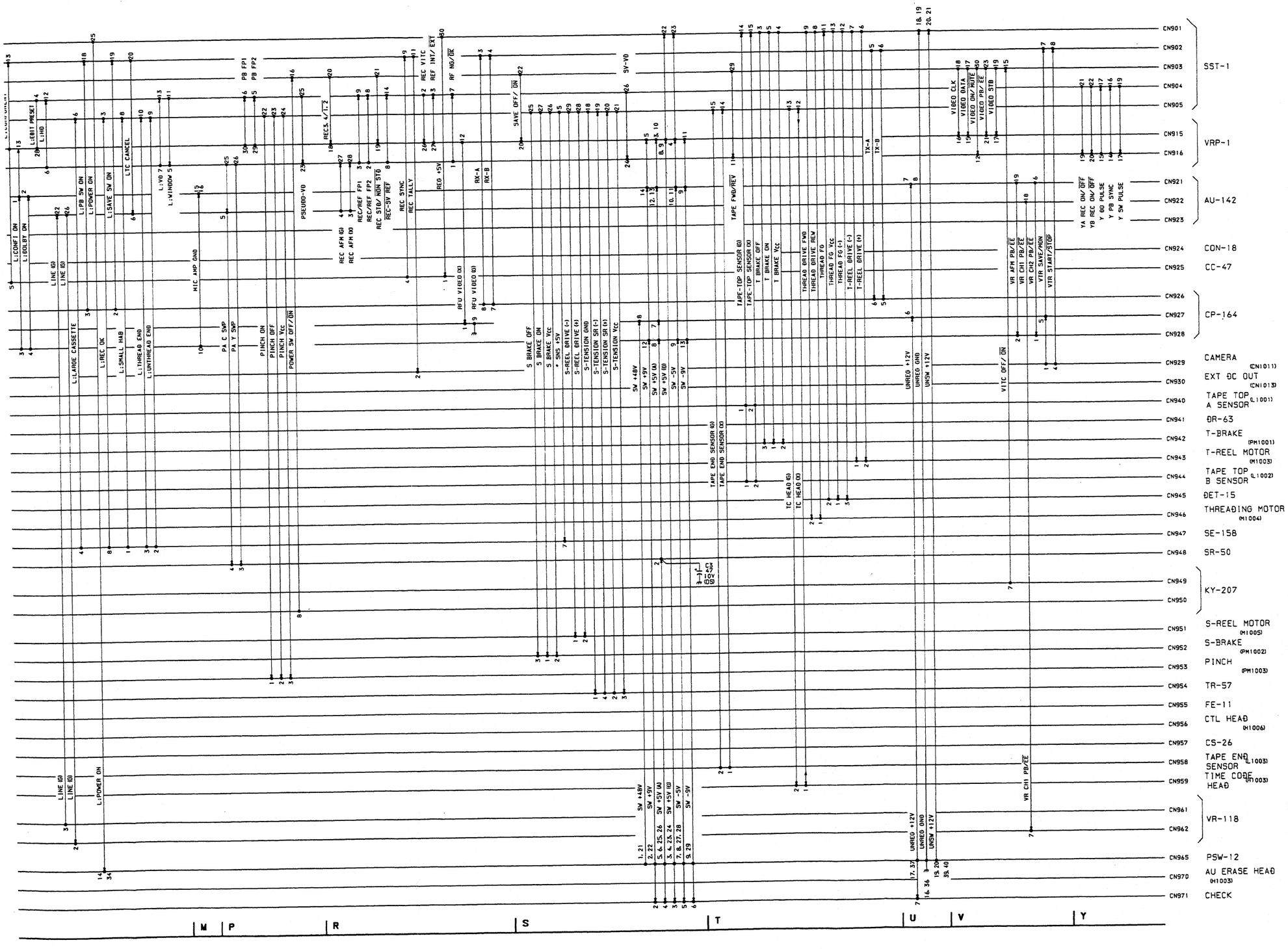
1-638-687-12 (1)
BVW-50
BVW-50P

11-81

11-81

MB-335 (2/2); MOTHER BOARD





MB-335 (2/2)

1-638-687-12 (1)
BVW-50
BVW-50P

11-83

FRAME (1/2), AH-30/31, CON-18, SR-50

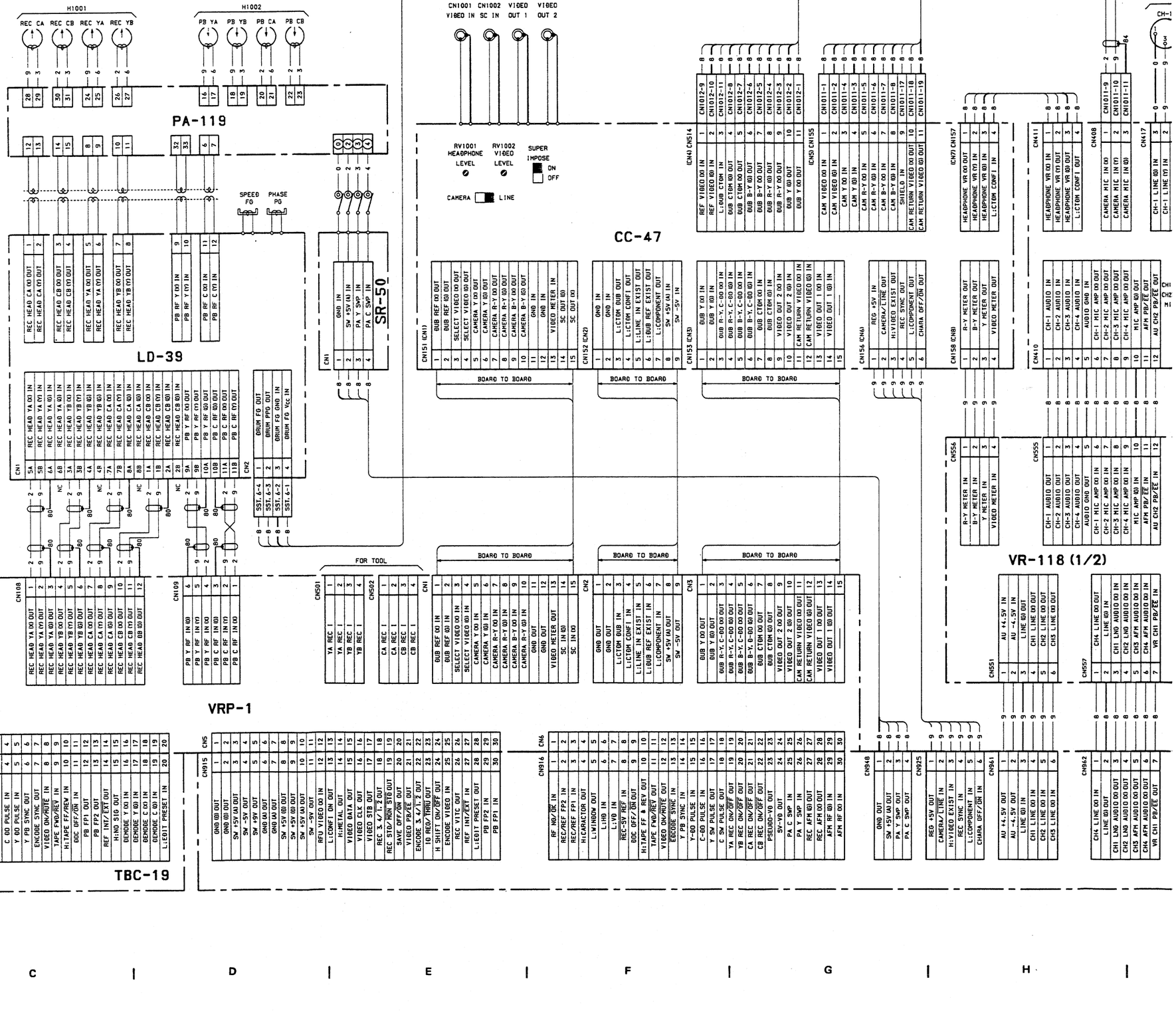
FRAME (1/2)

AH-30; AUDIO RP/ERASE/TC HEAD

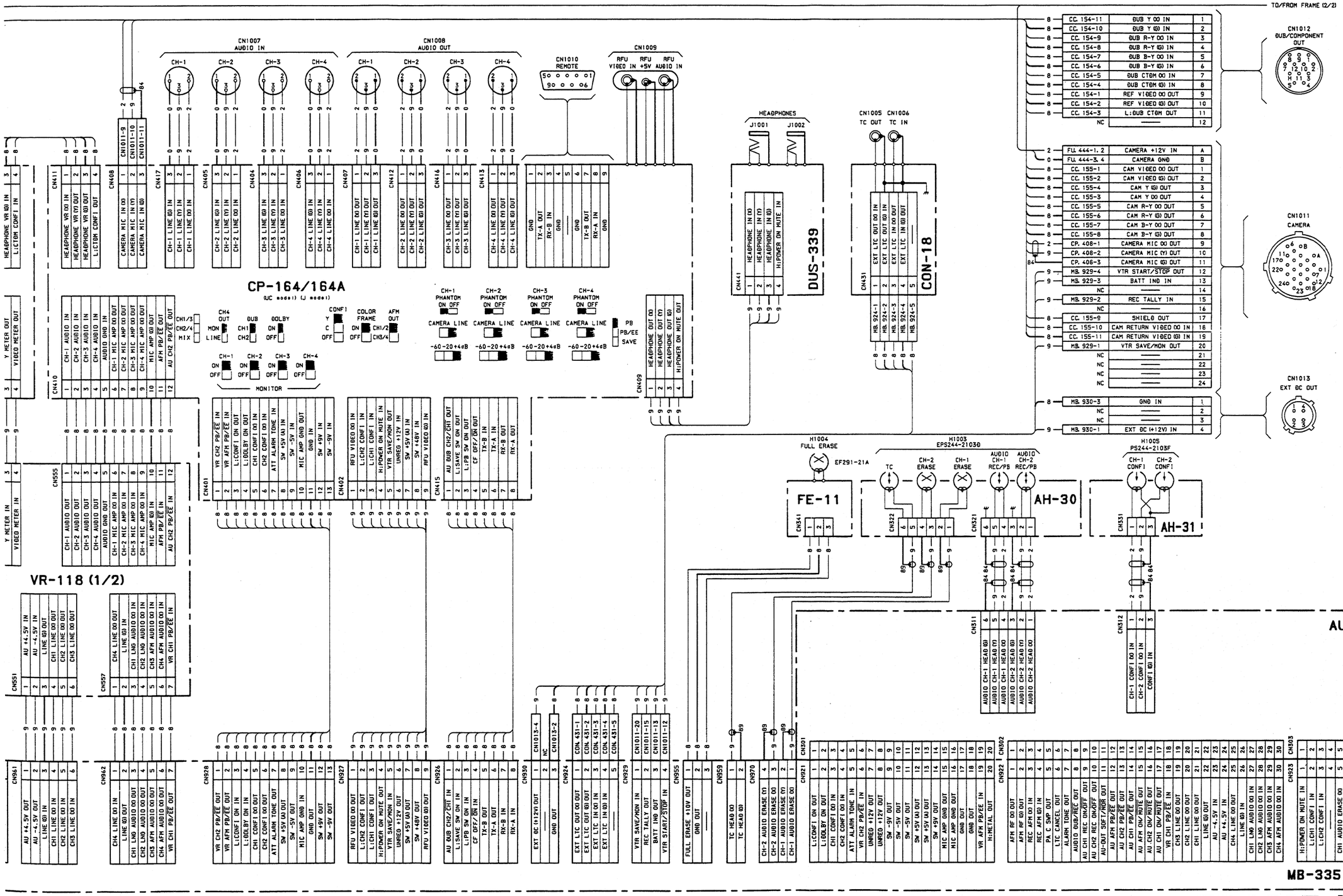
AH-31; AUDIO CONFI HEAD

CON-18; TC IN/OUT CONNECTOR

SR-50; SLIP-RING



FRAME (1/2), AH-30/31, CON-18, SR-50

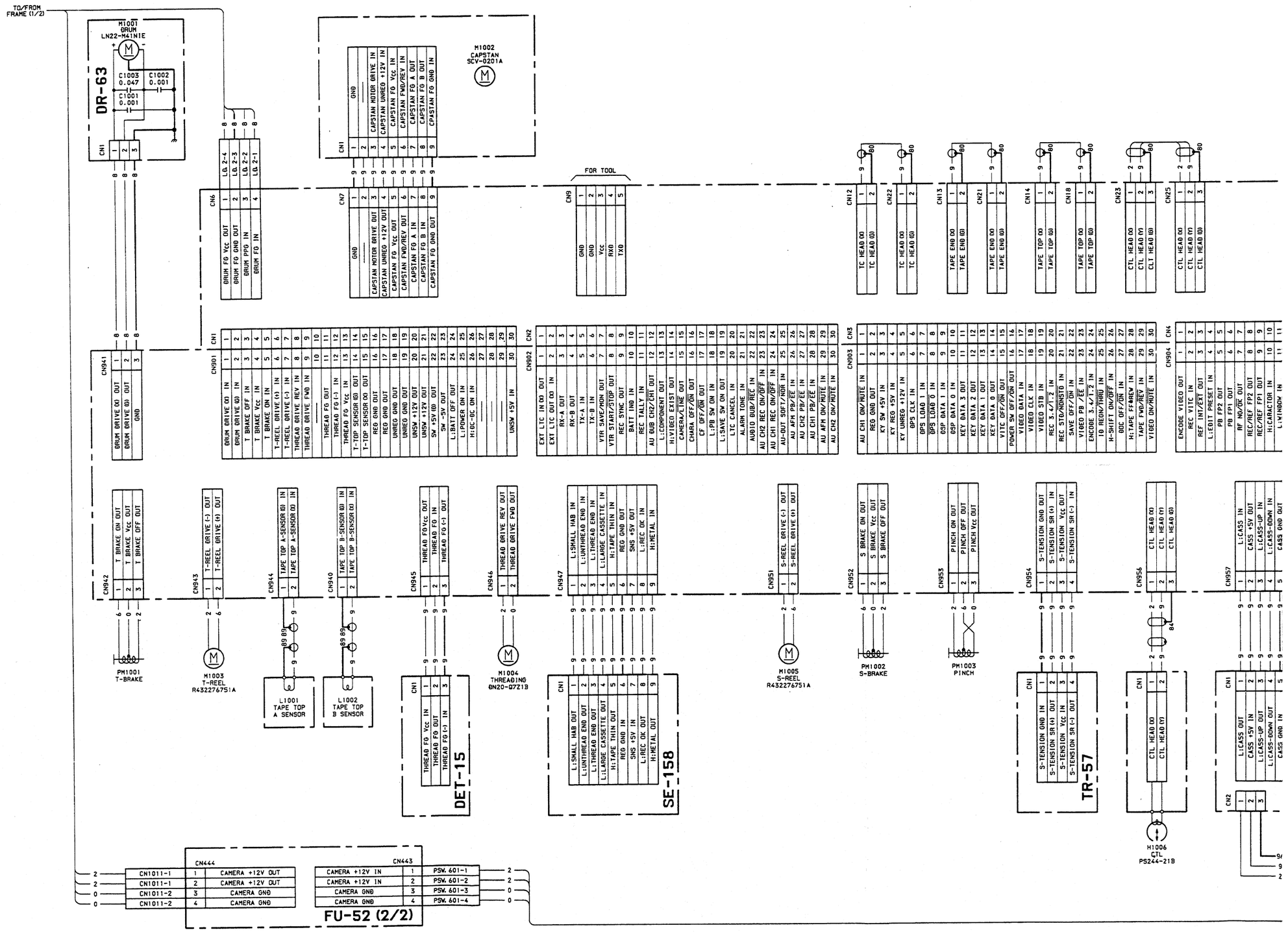


FRAME (1/2)

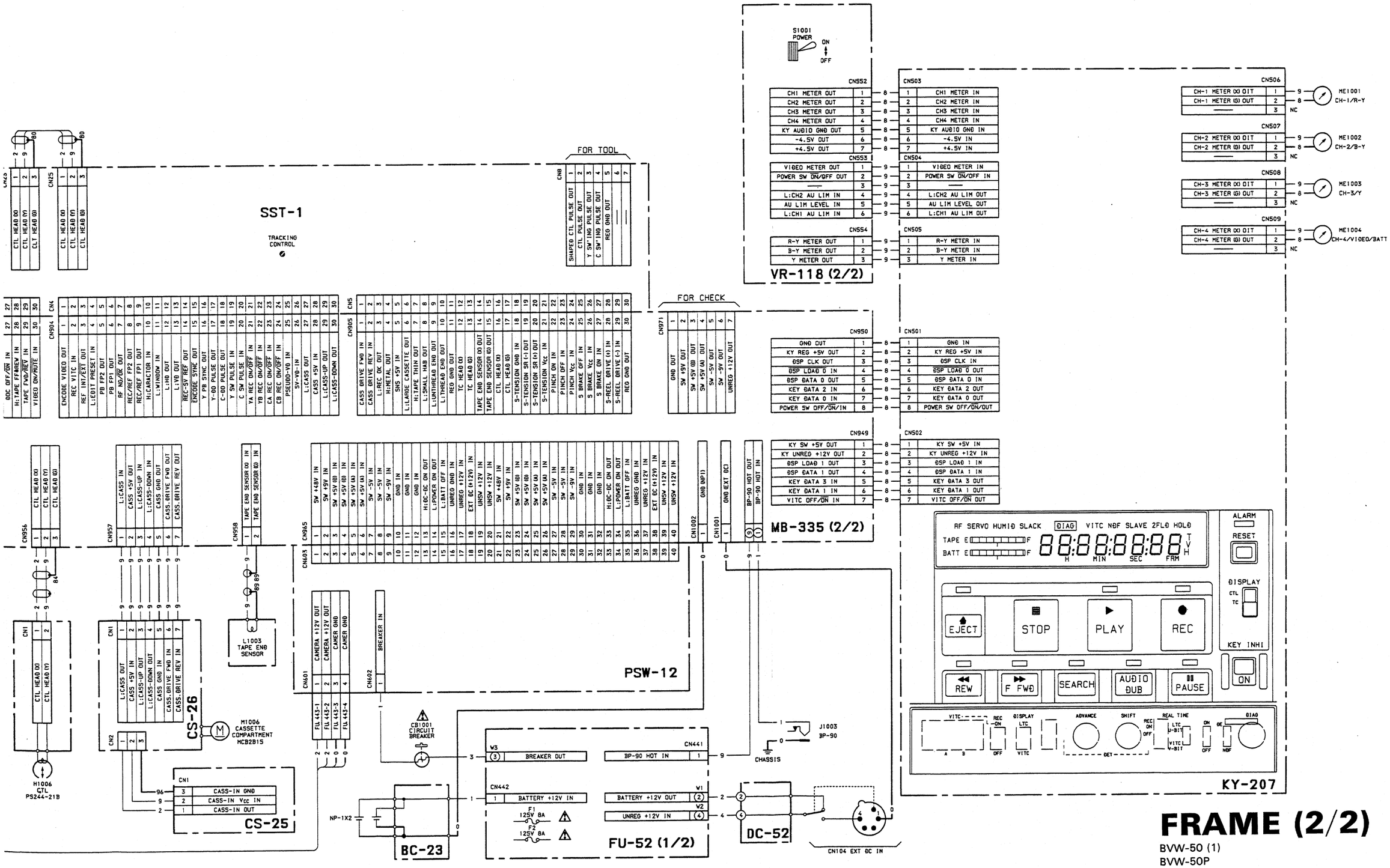
BVW-50 (1)
BVW-50P

H I I J I K I L I M I N I O I P

FRAME (2/2)
DR-63 ; DRUM MOTOR



NOTE :
The ⚠-marked components are critical to sefety.
Replace only with same components as specified.



FRAME (2/2)

BVW-50 (1)
BVW-50P

11-85

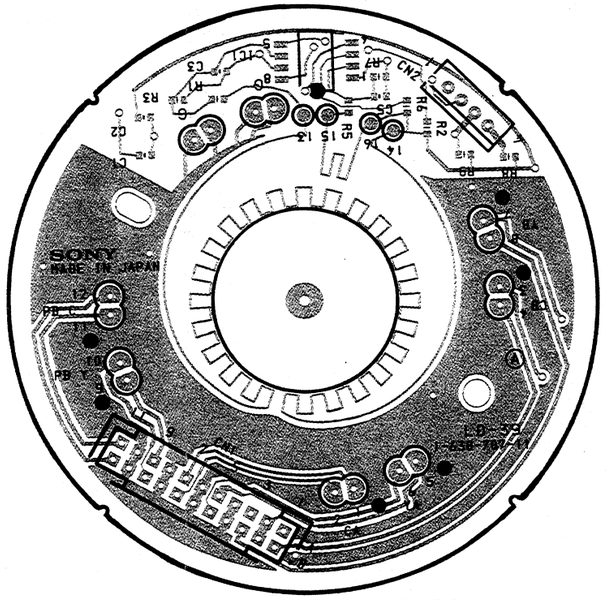
SECTION 12
PRINTED WIRING BOARD

Circuit Function of the Printed Wiring Boards.

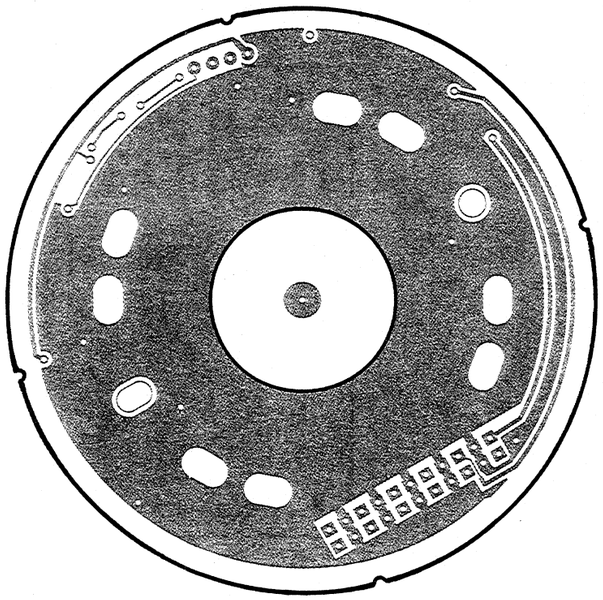
System	Board	Circuit Function
VIDEO	PA-119	Video PB Head Amplifier
		Video REC Head Connection
	LD-39	Video REC Head/PB RF Connection
		Drum FG/PG Amplifier
	VRP-1	Y/C Separator & CTDM
		Modulator/Demodulator
		Video Output/REC Amplifier
	TBC-19	Time Base Corrector
		Video Encoder
	CC-47	Video Input/Meter Driver
AUDIO	AU-142	LNG Audio REC/PB System
		AFM REC/PB System
	VR-118	Audio Level Control
		Power Switch
	DUS-339	Phones Jack
	FE-11	Full Erase Oscillator
	CP-164/A	Audio Input/Output System
		Panel Switches
SERVO • SYSTEM CONTROL • TIME CODE	SST-1	Servo & System Control
		Time Code
	CS-25	Cassette In Detector
	CS-26	Cassette Up/Down Detector
	SE-158	Thread/Unthread End Detector
		Cassette/Tape Detector
	DET-15	Threading FG Detector
	TR-57	S-Tension Detector
	CON-18	TC IN/OUT Connector
POWER	BC-23	Battery Terminal
	DC-52	External DC IN
	FU-52	Fuse
	PSW-12	DC-DC Converter
OTHER	MB-335	Mother Board
	SR-50	Slip-Ring

LD-39

LD-39 ; VIDEO REC HEAD/PB RF CONNECTION
DRUM FG/PG AMPLIFIER



LD-39 — A SIDE —
1-638-707-11 (1)
BVW-50
BVW-50P

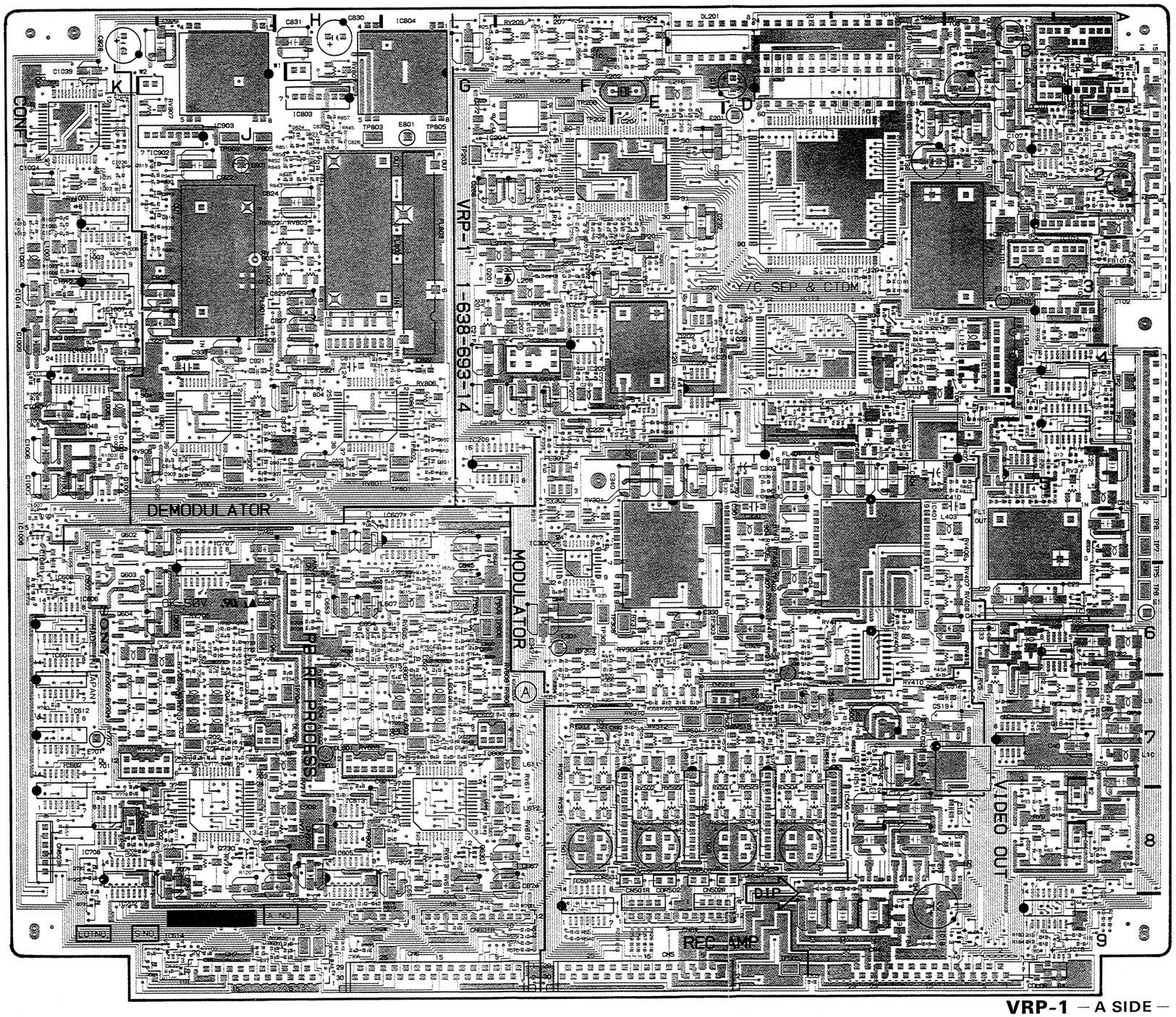


LD-39 — B SIDE —
1-638-707-11 (1)
BVW-50
BVW-50P

VRP-1 ; Y/C SEPARATOR&CTDM MODULATOR/DEMODULATOR VIDEO OUTPUT/REC AMPLIFIER

VRP-1 (1-638-693-14)

CN1	A-2 *	FB104	C-1	IC218	E-4	Q9	B-6 *	Q410	D-6 *	Q632	J-9	Q1010	K-2 *	RV533	E-8	TP302	F-6
CN2	A-3 *	FB105	B-1	IC219	D-4	Q10	A-4 *	Q411	D-6 *	Q633	G-6 *	Q1011	K-2 *	RV534	D-8	TP303	E-6
CN3	A-4 *	FB500	C-7	IC220	C-4	Q11	A-4	Q412	D-6 *	Q701	K-8 *	Q1012	K-2 *	RV541	F-8	TP304	F-6
CN4	C-9 *	FB501	C-7 *	IC221	D-3	Q12	A-4 *	Q413	D-6 *	Q702	J-7 *	Q1013	K-3 *	RV542	E-8	TP305	F-6
CN5	E-9			IC222	E-4	Q13	A-5	Q414	D-6 *	Q703	J-6 *	Q1014	K-2 *	RV543	D-8	TP306	E-6
CN6	G-9	FL1	B-5	IC223	E-3	Q14	B-4	Q415	D-6 *	Q704	J-6	Q1015	K-2 *	RV544	D-8	TP307	D-5
CN7	J-9 *	FL101	B-3	IC301	D-5	Q16	A-7	Q417	B-6 *	Q705	J-6	Q1017	K-4	RV601	G-7	TP308	E-6
CN8	E-9 *	FL102	A-1	IC302	F-5	Q17	B-4 *	Q418	C-6 *	Q706	J-7			RV602	H-7	TP401	C-4
CN9	H-9 *	FL103	B-3	IC303	E-6 *	Q18	B-5 *	Q419	C-6 *	Q707	H-8 *	RV1	A-6	RV603	H-7	TP402	D-6
CN10	B-2 *	FL104	B-3	IC401	C-5	Q19	B-4 *	Q420	C-6 *	Q708	J-6 *	RV2	A-6	RV604	H-7	TP403	C-6
CN501	E-8	FL201	F-4	IC402	C-6	Q21	B-4	Q500	D-7 *	Q709	H-8 *	RV3	A-5	RV605	G-6	TP407	B-5
CN502	E-8	FL301	F-5	IC501	F-8	Q101	A-3	Q501	E-7 *	Q710	J-8 *	RV5	B-7	RV606	H-6	TP408	D-5
CN503	E-7	FL401	D-5	IC502	C-7 *	Q102	B-3 *	Q502	E-7	Q712	J-6 *	RV7	A-7	RV607	H-7	TP501	E-7
CN601	G-9 *	FL801	H-4	IC503	E-8	Q103	B-2 *	Q503	F-7 *	Q713	J-8 *	RV8	A-8	RV608	F-7	TP502	E-7
CN602	H-8	FL802	H-2	IC504	E-8	Q104	B-2 *	Q504	F-8 *	Q714	J-7	RV9	B-8	RV609	F-6	TP503	D-7
CN603	K-8	FL803	G-2	IC505	D-8	Q105	A-3 *	Q505	F-8 *	Q730	J-8	RV10	B-7	RV610	F-8	TP504	D-7
CN604	K-8	FL901	J-3	IC506	C-8	Q106	A-1	Q506	E-7 *	Q731	K-9	RV101	A-3	RV611	F-7	TP505	D-9
				IC508	F-7 *	Q107	B-1 *	Q507	E-7	Q732	K-8	RV102	A-3	RV612	G-8	TP506	D-7
COP501	E-8	IC1	B-8	IC510	C-7	Q108	A-2	Q508	E-7 *	Q801	G-5	RV103	A-2	RV613	G-8	TP602	H-8
COP502	E-8	IC2	A-8	IC511	C-7	Q109	A-1	Q509	E-8 *	Q802	G-4	RV104	A-1	RV614	H-6	TP603	G-7
COP503	E-8	IC3	A-8 *	IC601	K-6	Q110	B-2 *	Q510	E-8 *	Q803	G-4	RV105	C-3	RV701	K-7	TP604	G-6
COP504	D-8	IC4	C-8 *	IC602	K-7	Q111	B-4	Q511	F-7 *	Q804	G-5 *	RV106	B-4	RV702	K-7	TP605	G-6
		IC5	A-4	IC603	K-6 *	Q113	C-4	Q512	F-7 *	Q805	G-4 *	RV201	G-3	RV703	J-7	TP606	G-6
COR501	E-8	IC6	B-4	IC604	H-7 *	Q114	D-4 *	Q513	F-7 *	Q806	G-4 *	RV203	E-1	RV704	K-7	TP607	G-8
COR502	E-8	IC7	A-6	IC605	H-8	Q115	B-2 *	Q514	F-7 *	Q807	G-4 *	RV204	E-1	RV705	J-6	TP610	H-9
COR503	E-8	IC8	A-4	IC606	G-7	Q116	B-2 *	Q515	D-7 *	Q808	H-5 *	RV206	F-1	RV706	J-6	TP701	H-9
COR504	D-8	IC9	B-6 *	IC607	G-5	Q117	A-2 *	Q516	D-7 *	Q809	H-4 *	RV207	F-1	RV707	K-7	TP702	K-8
		IC10	A-6 *	IC609	H-6 *	Q119	A-2	Q517	D-7	Q810	G-4 *	RV208	F-1	RV708	J-7	TP703	J-7
DL101	B-1	IC11	B-7	IC610	G-6 *	Q201	E-2 *	Q518	D-7 *	Q811	G-4 *	RV209	F-1	RV709	J-6	TP704	H-7
DL201	E-1	IC12	A-8 *	IC611	H-5 *	Q202	E-2 *	Q519	E-8 *	Q812	H-4 *	RV210	F-1	RV710	H-8	TP705	J-6
DL601	H-7	IC13	B-8 *	IC612	K-7	Q203	G-4 *	Q520	D-8 *	Q813	H-4 *	RV211	F-2	RV711	H-7	TP706	J-6
DL602	G-7	IC14	B-7 *	IC613	H-8	Q204	G-3 *	Q521	D-7 *	Q814	H-4 *	RV212	F-2	RV712	J-9	TP707	J-8
DL701	K-7	IC15	A-7 *	IC614	J-9	Q205	F-3 *	Q522	D-7	Q815	G-3 *	RV301	F-5	RV713	J-8	TP801	G-5
DL702	H-7	IC16	A-9	IC702	K-9	Q206	D-2 *	Q523	D-7 *	Q816	H-2 *	RV302	F-5	RV801	H-5	TP802	G-4
		IC17	A-6	IC703	J-7	Q207	E-2 *	Q524	D-8 *	Q817	H-3 *	RV303	F-6	RV802	J-2	TP803	H-2
D101	A-2 *	IC18	C-9	IC704	K-7 *	Q208	E-4 *	Q525	D-8 *	Q818	G-2 *	RV304	E-6	RV803	H-2	TP805	G-2
D102	A-2	IC101	B-3	IC706	J-6 *	Q209	E-4 *	Q526	C-7	Q821	H-2 *	RV306	D-5	RV804	H-4	TP901	J-5
D103	B-2 *	IC103	A-3	IC707	J-5	Q210	F-3 *	Q527	C-7 *	Q822	H-2	RV307	D-6	RV805	H-4	TP902	J-5
D111	A-2 *	IC104	A-1	IC708	K-8	Q211	F-3 *	Q528	C-8 *	Q823	H-2	RV308	D-6	RV806	G-4	TP903	J-2
D112	A-2 *	IC105	A-2 *	IC801	G-4	Q212	G-3 *	Q529	D-7 *	Q824	H-2	RV309	F-7	RV807	H-1	TP905	J-2
D121	A-2	IC108	B-2 *	IC802	H-2 *	Q213	F-1 *	Q530	E-6 *	Q825	H-2 *	RV310	E-7	RV901	J-5	TP906	J-3
D122	A-2	IC109	B-1 *	IC803	H-1	Q214	F-1 *	Q601	K-6 *	Q826	H-2 *	RV311	E-6	RV902	J-3		
D201	G-3	IC110	C-1	IC804	G-1	Q215	F-1 *	Q602	K-5	Q827	H-1 *	RV312	E-7	RV903	J-3	T501	F-8
D202	E-3	IC111	C-1	IC806	K-6	Q216	F-3 *	Q603	K-6	Q901	J-5	RV313	D-6	RV904	K-4	T502	E-8
D203	E-4 *	IC112	C-3	IC807	H-4 *	Q218	F-3 *	Q604	K-6	Q902	J-4	RV314	E-6	RV905	K-4	T503	E-8
D204	D-4	IC113	D-3	IC818	H-2 *	Q219	F-4	Q605	H-8 *	Q903	J-4	RV401	D-5	RV906	J-4	T504	D-8
D301	F-5 *	IC114	C-3 *	IC901	J-4	Q301	E-5 *	Q606	H-8 *	Q904	J-5 *	RV406	B-5	RV907	J-1		
D500	C-7	IC115	C-4 *	IC902	J-2	Q302	E-5 *	Q607	G-7 *	Q905	J-4 *	RV407	B-6	RV1001	K-2	X201	E-4
D1001	K-4	IC116	B-4	IC903	J-2	Q303	F-5 *	Q608	H-6	Q906	J-4 *	RV408	B-6			X202	E-1
D1002	K-1 *	IC118	C-3 *	IC907	K-5 *	Q304	F-5 *	Q609	H-6	Q907	K-4 *	RV409	C-6	S1	B-9		
D1003	K-2	IC120	B-2	IC918	J-2 *	Q306	F-6 *	Q610	G-6	Q908	K-4 *	RV410	C-7	S2	H-6 *	* mark; B SIDE mount.	
		IC121	C-1	IC1001	K-2	Q307	E-5 *	Q611	G-6 *	Q909	J-3 *	RV411	D-6	S201	F-1		
E1	A-6	IC122	B-1	IC1002	K-4 *	Q308	D-6 *	Q612	G-6	Q910	J-2 *	RV412	D-7				
E101	B-3	IC201	E-2	IC1003	K-3	Q309	D-6 *	Q613	G-6 *	Q913	J-2	RV413	B-6	TP1	B-4		
E201	E-1	IC203	E-3 *	IC1004	K-1	Q310	D-6 *	Q614	G-6	Q914	J-2	RV414	D-6	TP2	A-4		
E301	F-6	IC204	F-2	IC1005	K-4	Q311	E-5 *	Q615	G-6	Q915	K-2	RV501	F-7	TP3	A-4		
E401	D-6	IC205	F-4	IC1006	K-5	Q312	E-6 *	Q617	G-6 *	Q916	J-3 *	RV502	E-7	TP5	A-6		
E601	H-7	IC206	E-4	IC1007	K-3	Q314	E-6 *	Q618	G-6	Q917	J-2 *	RV503	E-7	TP6	A-6		
E701	K-7	IC207	E-3 *			Q315	E-6 *	Q619	G-7	Q918	J-2 *	RV504	D-7	TP7	A-5		
E801	G-2	IC208	E-2 *	LV201	E-3	Q316	E-6 *	Q620	G-5 *	Q919	K-2	RV511	F-7	TP8	A-5		
E901	J-2	IC209	G-4			Q317	E-6 *	Q621	G-7 *	Q1001	K-5	RV512	E-7	TP101	B-2		
		IC210	E-1 *	Q1	B-8 *	Q402	D-5 *	Q622	G-8 *	Q1002	K-4	RV513	D-7	TP102	A-1		
FB1	A-5 *	IC211	F-1 *	Q2	C-8	Q403	D-5 *	Q623	F-8 *	Q1003	K-3 *	RV514	D-7	TP201	E-3		
FB2	A-5 *	IC212	F-1 *	Q3	C-8	Q404	C-5 *	Q624	F-8 *	Q1004	K-3 *	RV521	F-7	TP202	F-1		
FB3	A-4 *	IC213	F-2 *	Q4	C-8	Q405	C-5 *	Q626	G-8 *	Q1005	K-3 *	RV522	E-7	TP203	G-2		
FB4	C-9	IC214	F-2 *	Q5	B-8	Q406	B-6 *	Q627	G-7	Q1006	K-3 *	RV523	D-7	TP206	F-1		
FB101	A-3	IC215	F-4 *	Q6	A-6 *	Q407	B-6 *	Q628	G-6 *	Q1007	K-3 *	RV524	D-7	TP207	F-4		
FB102	A-1 *	IC216	E-4	Q7	B-5 *	Q408	B-6 *	Q630	G-8	Q1008	K-1 *	RV531	F-8	TP208	F-3		
FB103	C-2 *	IC217	F-3	Q8	B-5 *	Q409	C-5 *	Q631	K-9	Q1009	K-1 *	RV532	E-8	TP301	E-4		



VRP-1 — A SIDE —
1-638-693-14 (1)
BVW-50
BVW-50P

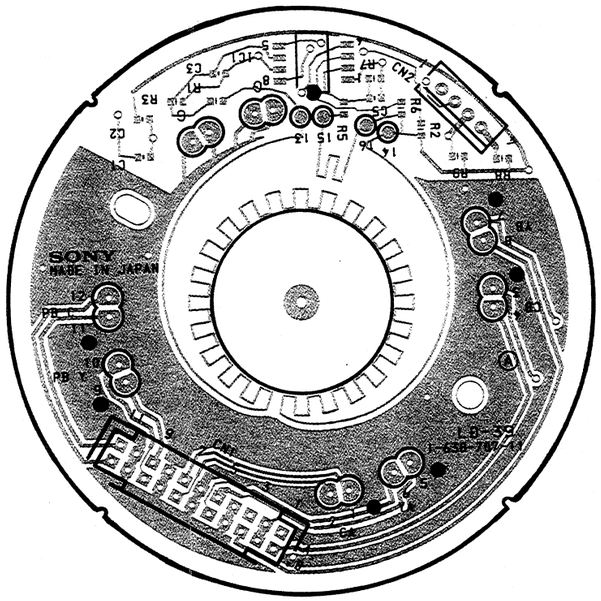
SECTION 12
PRINTED WIRING BOARD

Circuit Function of the Printed Wiring Boards.

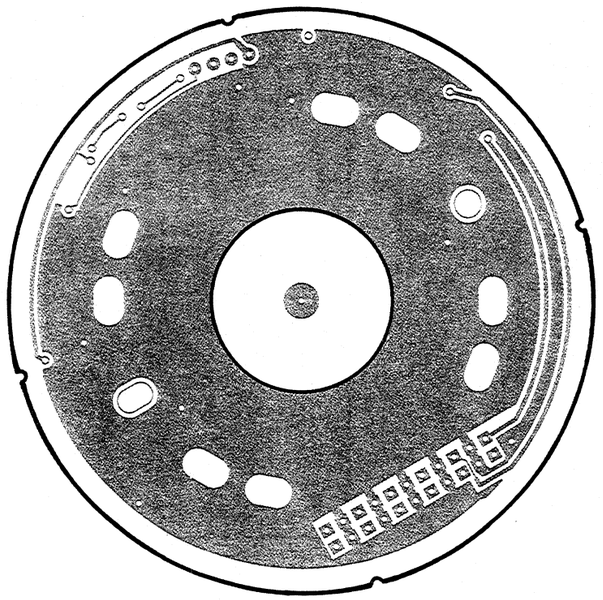
System	Board	Circuit Function
VIDEO	PA-119	Video PB Head Amplifier
		Video REC Head Connection
	LD-39	Video REC Head/PB RF Connection
		Drum FG/PG Amplifier
	VRP-1	Y/C Separator & CTDM
		Modulator/Demodulator
		Video Output/REC Amplifier
	TBC-19	Time Base Corrector
		Video Encoder
	CC-47	Video Input/Meter Driver
AUDIO	AU-142	LNG Audio REC/PB System
		AFM REC/PB System
	VR-118	Audio Level Control
		Power Switch
	DUS-339	Phones Jack
	FE-11	Full Erase Oscillator
	CP-164/A	Audio Input/Output System
		Panel Switches
SERVO • SYSTEM CONTROL • TIME CODE	SST-1	Servo & System Control
		Time Code
	CS-25	Cassette In Detector
	CS-26	Cassette Up/Down Detector
	SE-158	Thread/Unthread End Detector
		Cassette/Tape Detector
	DET-15	Threading FG Detector
	TR-57	S-Tension Detector
	CON-18	TC IN/OUT Connector
POWER	BC-23	Battery Terminal
	DC-52	External DC IN
	FU-52	Fuse
	PSW-12	DC-DC Converter
OTHER	MB-335	Mother Board
	SR-50	Slip-Ring

LD-39

LD-39 ; VIDEO REC HEAD/PB RF CONNECTION
DRUM FG/PG AMPLIFIER



LD-39 — A SIDE —
1-638-707-11 (1)
BVW-50
BVW-50P

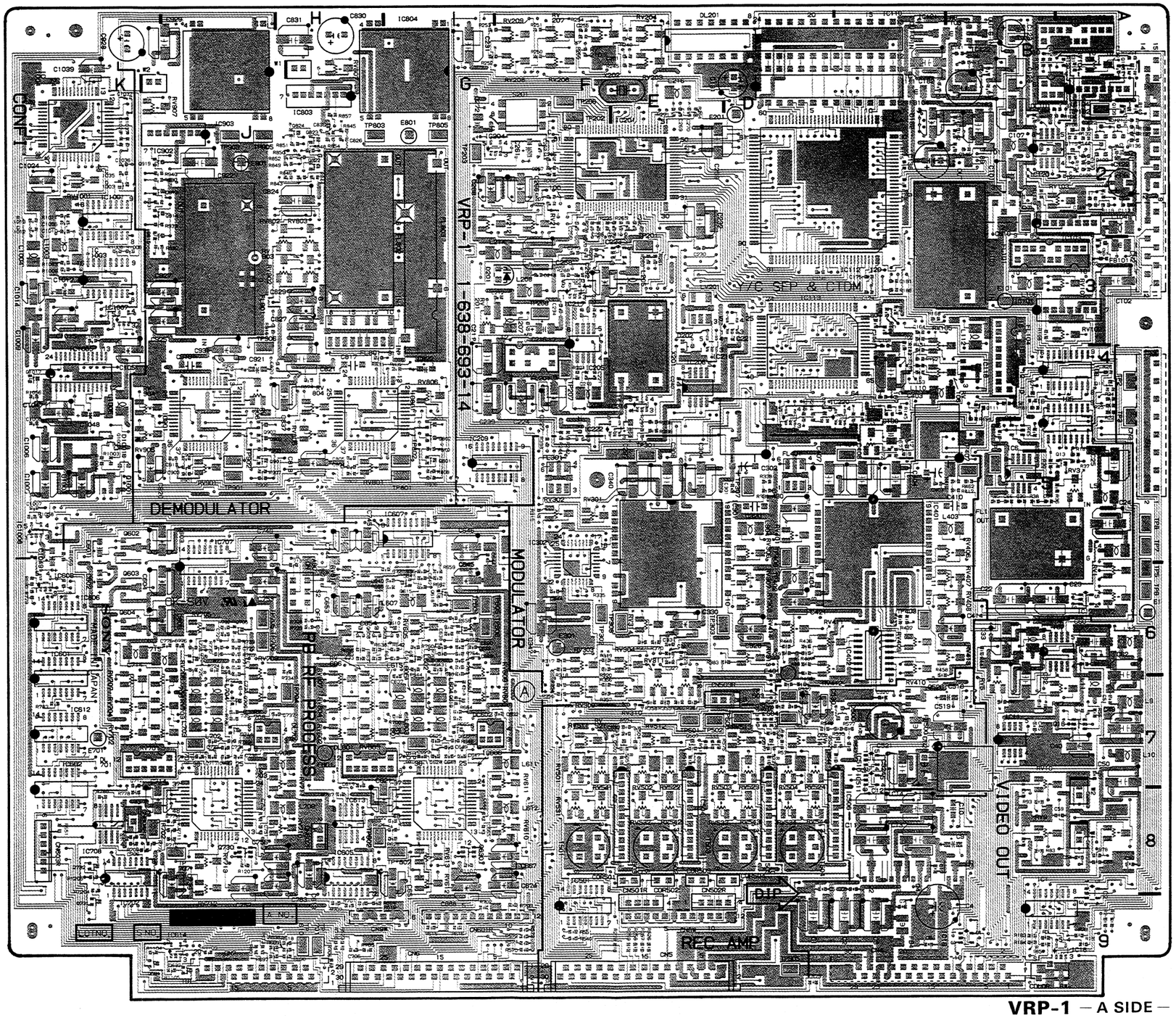


LD-39 — B SIDE —
1-638-707-11 (1)
BVW-50
BVW-50P

VRP-1 ; Y/C SEPARATOR&CTDM MODULATOR/DEMODULATOR VIDEO OUTPUT/REC AMPLIFIER

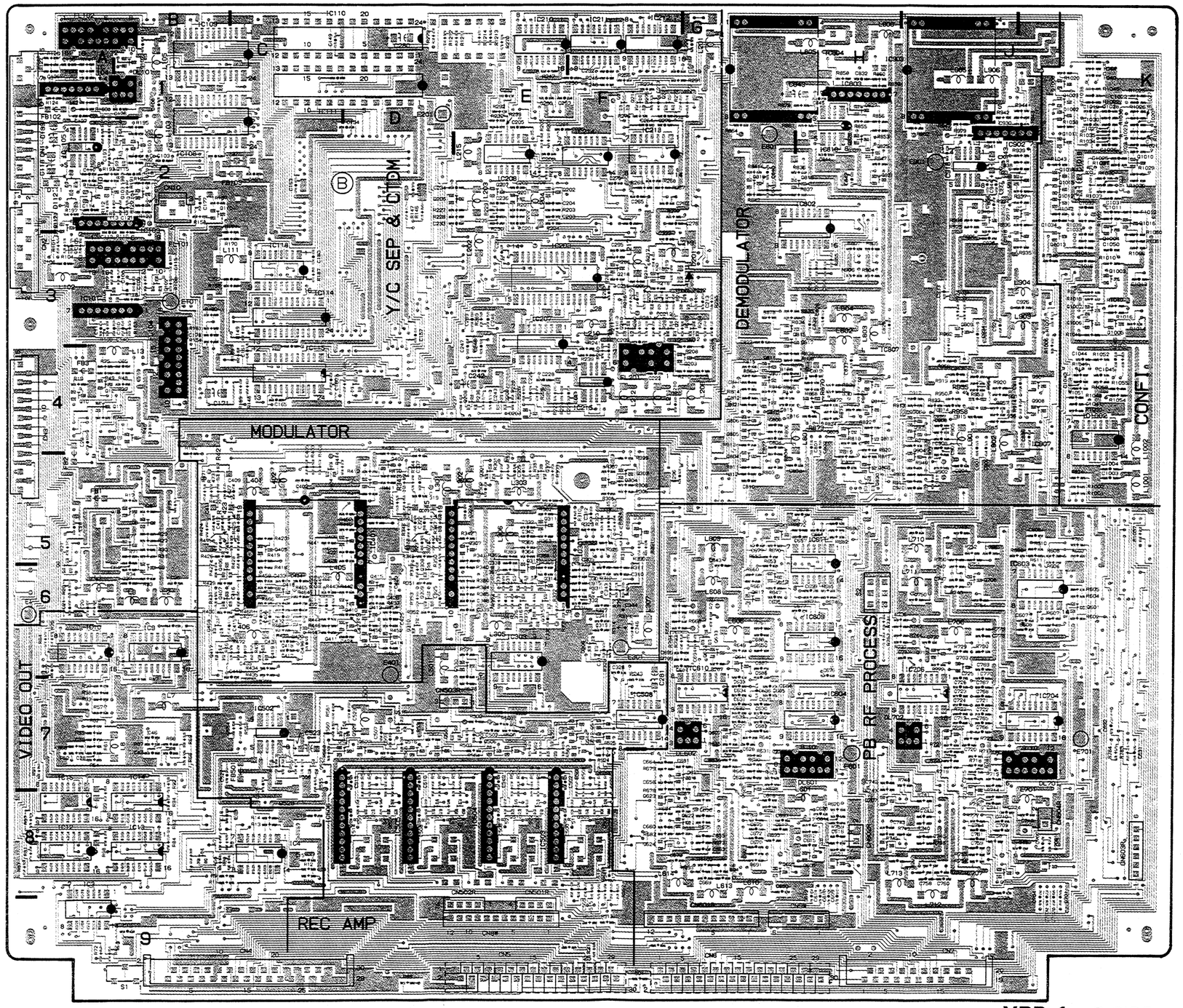
VRP-1 (1-638-693-14)

CN1	A-2 *	FB104	C-1	IC218	E-4	Q9	B-6 *	Q410	D-6 *	Q632	J-9	Q1010	K-2 *	RV533	E-8	TP302	F-6
CN2	A-3 *	FB105	B-1	IC219	D-4	Q10	A-4 *	Q411	D-6 *	Q633	G-6 *	Q1011	K-2 *	RV534	D-8	TP303	E-6
CN3	A-4 *	FB500	C-7	IC220	C-4	Q11	A-4	Q412	D-6 *	Q701	K-8 *	Q1012	K-2 *	RV541	F-8	TP304	F-6
CN4	C-9 *	FB501	C-7 *	IC221	D-3	Q12	A-4 *	Q413	D-6 *	Q702	J-7 *	Q1013	K-3 *	RV542	E-8	TP305	F-6
CN5	E-9			IC222	E-4	Q13	A-5	Q414	D-6 *	Q703	J-6 *	Q1014	K-2 *	RV543	D-8	TP306	E-6
CN6	G-9	FL1	B-5	IC223	E-3	Q14	B-4	Q415	D-6 *	Q704	J-6	Q1015	K-2 *	RV544	D-8	TP307	D-5
CN7	J-9 *	FL101	B-3	IC301	D-5	Q16	A-7	Q417	B-6 *	Q705	J-6	Q1017	K-4	RV601	G-7	TP308	E-6
CN8	E-9 *	FL102	A-1	IC302	F-5	Q17	B-4 *	Q418	C-6 *	Q706	J-7			RV602	H-7	TP401	C-4
CN9	H-9 *	FL103	B-3	IC303	E-6 *	Q18	B-5 *	Q419	C-6 *	Q707	H-8 *	RV1	A-6	RV603	H-7	TP402	D-6
CN10	B-2 *	FL104	B-3	IC401	C-5	Q19	B-4 *	Q420	C-6 *	Q708	J-6 *	RV2	A-6	RV604	H-7	TP403	C-6
CN501	E-8	FL201	F-4	IC402	C-6	Q21	B-4	Q500	D-7 *	Q709	H-8 *	RV3	A-5	RV605	G-6	TP407	B-5
CN502	E-8	FL301	F-5	IC501	F-8	Q101	A-3	Q501	E-7 *	Q710	J-8 *	RV5	B-7	RV606	H-6	TP408	D-5
CN503	E-7	FL401	D-5	IC502	C-7 *	Q102	B-3 *	Q502	E-7	Q712	J-6 *	RV7	A-7	RV607	H-7	TP501	E-7
CN601	G-9 *	FL801	H-4	IC503	E-8	Q103	B-2 *	Q503	F-7 *	Q713	J-8 *	RV8	A-8	RV608	F-7	TP502	E-7
CN602	H-8	FL802	H-2	IC504	E-8	Q104	B-2 *	Q504	F-8 *	Q714	J-7	RV9	B-8	RV609	F-6	TP503	D-7
CN603	K-8	FL803	G-2	IC505	D-8	Q105	A-3 *	Q505	F-8 *	Q730	J-8	RV10	B-7	RV610	F-8	TP504	D-7
CN604	K-8	FL901	J-3	IC506	C-8	Q106	A-1	Q506	E-7 *	Q731	K-9	RV101	A-3	RV611	F-7	TP505	D-9
				IC508	F-7 *	Q107	B-1 *	Q507	E-7	Q732	K-8	RV102	A-3	RV612	G-8	TP506	D-7
COP501	E-8	IC1	B-8	IC510	C-7	Q108	A-2	Q508	E-7 *	Q801	G-5	RV103	A-2	RV613	G-8	TP602	H-8
COP502	E-8	IC2	A-8	IC511	C-7	Q109	A-1	Q509	E-8 *	Q802	G-4	RV104	A-1	RV614	H-6	TP603	G-7
COP503	E-8	IC3	A-8 *	IC601	K-6	Q110	B-2 *	Q510	E-8 *	Q803	G-4	RV105	C-3	RV701	K-7	TP604	G-6
COP504	D-8	IC4	C-8 *	IC602	K-7	Q111	B-4	Q511	F-7 *	Q804	G-5 *	RV106	B-4	RV702	K-7	TP605	G-6
		IC5	A-4	IC603	K-6 *	Q113	C-4	Q512	F-7 *	Q805	G-4 *	RV201	G-3	RV703	J-7	TP606	G-6
COR501	E-8	IC6	B-4	IC604	H-7 *	Q114	D-4 *	Q513	F-7 *	Q806	G-4 *	RV203	E-1	RV704	K-7	TP607	G-8
COR502	E-8	IC7	A-6	IC605	H-8	Q115	B-2 *	Q514	F-7 *	Q807	G-4 *	RV204	E-1	RV705	J-6	TP610	H-9
COR503	E-8	IC8	A-4	IC606	G-7	Q116	B-2 *	Q515	D-7 *	Q808	H-5 *	RV206	F-1	RV706	J-6	TP701	H-9
COR504	D-8	IC9	B-6 *	IC607	G-5	Q117	A-2 *	Q516	D-7 *	Q809	H-4 *	RV207	F-1	RV707	K-7	TP702	K-8
		IC10	A-6 *	IC609	H-6 *	Q119	A-2	Q517	D-7	Q810	G-4 *	RV208	F-1	RV708	J-7	TP703	J-7
DL101	B-1	IC11	B-7	IC610	G-6 *	Q201	E-2 *	Q518	D-7 *	Q811	G-4 *	RV209	F-1	RV709	J-6	TP704	H-7
DL201	E-1	IC12	A-8 *	IC611	H-5 *	Q202	E-2 *	Q519	E-8 *	Q812	H-4 *	RV210	F-1	RV710	H-8	TP705	J-6
DL601	H-7	IC13	B-8 *	IC612	K-7	Q203	G-4 *	Q520	D-8 *	Q813	H-4 *	RV211	F-2	RV711	H-7	TP706	J-6
DL602	G-7	IC14	B-7 *	IC613	H-8	Q204	G-3 *	Q521	D-7 *	Q814	H-4 *	RV212	F-2	RV712	J-9	TP707	J-8
DL701	K-7	IC15	A-7 *	IC614	J-9	Q205	F-3 *	Q522	D-7	Q815	G-3 *	RV301	F-5	RV713	J-8	TP801	G-5
DL702	H-7	IC16	A-9	IC702	K-9	Q206	D-2 *	Q523	D-7 *	Q816	H-2 *	RV302	F-5	RV801	H-5	TP802	G-4
		IC17	A-6	IC703	J-7	Q207	E-2 *	Q524	D-8 *	Q817	H-3 *	RV303	F-6	RV802	J-2	TP803	H-2
D101	A-2 *	IC18	C-9	IC704	K-7 *	Q208	E-4 *	Q525	D-8 *	Q818	G-2 *	RV304	E-6	RV803	H-2	TP805	G-2
D102	A-2	IC101	B-3	IC706	J-6 *	Q209	E-4 *	Q526	C-7	Q821	H-2 *	RV306	D-5	RV804	H-4	TP901	J-5
D103	B-2 *	IC103	A-3	IC707	J-5	Q210	F-3 *	Q527	C-7 *	Q822	H-2	RV307	D-6	RV805	H-4	TP902	J-5
D111	A-2 *	IC104	A-1	IC708	K-8	Q211	F-3 *	Q528	C-8 *	Q823	H-2	RV308	D-6	RV806	G-4	TP903	J-2
D112	A-2 *	IC105	A-2 *	IC801	G-4	Q212	G-3 *	Q529	D-7 *	Q824	H-2	RV309	F-7	RV807	H-1	TP905	J-2
D121	A-2	IC108	B-2 *	IC802	H-2 *	Q213	F-1 *	Q530	E-6 *	Q825	H-2 *	RV310	E-7	RV901	J-5	TP906	J-3
D122	A-2	IC109	B-1 *	IC803	H-1	Q214	F-1 *	Q601	K-6 *	Q826	H-2 *	RV311	E-6	RV902	J-3		
D201	G-3	IC110	C-1	IC804	G-1	Q215	F-1 *	Q602	K-5	Q827	H-1 *	RV312	E-7	RV903	J-3	T501	F-8
D202	E-3	IC111	C-1	IC806	K-6	Q216	F-3 *	Q603	K-6	Q901	J-5	RV313	D-6	RV904	K-4	T502	E-8
D203	E-4 *	IC112	C-3	IC807	H-4 *	Q218	F-3 *	Q604	K-6	Q902	J-4	RV314	E-6	RV905	K-4	T503	E-8
D204	D-4	IC113	D-3	IC818	H-2 *	Q219	F-4	Q605	H-8 *	Q903	J-4	RV401	D-5	RV906	J-4	T504	D-8
D301	F-5 *	IC114	C-3 *	IC901	J-4	Q301	E-5 *	Q606	H-8 *	Q904	J-5 *	RV406	B-5	RV907	J-1		
D500	C-7	IC115	C-4 *	IC902	J-2	Q302	E-5 *	Q607	G-7 *	Q905	J-4 *	RV407	B-6	RV1001	K-2	X201	E-4
D1001	K-4	IC116	B-4	IC903	J-2	Q303	F-5 *	Q608	H-6	Q906	J-4 *	RV408	B-6			X202	E-1
D1002	K-1 *	IC118	C-3 *	IC907	K-5 *	Q304	F-5 *	Q609	H-6	Q907	K-4 *	RV409	C-6	S1	B-9		
D1003	K-2	IC120	B-2	IC918	J-2 *	Q306	F-6 *	Q610	G-6	Q908	K-4 *	RV410	C-7	S2	H-6 *	* mark ; B SIDE mount.	
		IC121	C-1	IC1001	K-2	Q307	E-5 *	Q611	G-6 *	Q909	J-3 *	RV411	D-6	S201	F-1		
E1	A-6	IC122	B-1	IC1002	K-4 *	Q308	D-6 *	Q612	G-6	Q910	J-2 *	RV412	D-7				
E101	B-3	IC201	E-2	IC1003	K-3	Q309	D-6 *	Q613	G-6 *	Q913	J-2	RV413	B-6	TP1	B-4		
E201	E-1	IC203	E-3 *	IC1004	K-1	Q310	D-6 *	Q614	G-6	Q914	J-2	RV414	D-6	TP2	A-4		
E301	F-6	IC204	F-2	IC1005	K-4	Q311	E-5 *	Q615	G-6	Q915	K-2	RV501	F-7	TP3	A-4		
E401	D-6	IC205	F-4	IC1006	K-5	Q312	E-6 *	Q617	G-6 *	Q916	J-3 *	RV502	E-7	TP5	A-6		
E601	H-7	IC206	E-4	IC1007	K-3	Q314	E-6 *	Q618	G-6	Q917	J-2 *	RV503	E-7	TP6	A-6		
E701	K-7	IC207	E-3 *			Q315	E-6 *	Q619	G-7	Q918	J-2 *	RV504	D-7	TP7	A-5		
E801	G-2	IC208	E-2 *	LV201	E-3	Q316	E-6 *	Q620	G-5 *	Q919	K-2	RV511	F-7	TP8	A-5		
E901	J-2	IC209	G-4			Q317	E-6 *	Q621	G-7 *	Q1001	K-5	RV512	E-7	TP101	B-2		
		IC210	E-1 *	Q1	B-8 *	Q402	D-5 *	Q622	G-8 *	Q1002	K-4	RV513	D-7	TP102	A-1		
FB1	A-5 *	IC211	F-1 *	Q2	C-8	Q403	D-5 *	Q623	F-8 *	Q1003	K-3 *	RV514	D-7	TP201	E-3		
FB2	A-5 *	IC212	F-1 *	Q3	C-8	Q404	C-5 *	Q624	F-8 *	Q1004	K-3 *	RV521	F-7	TP202	F-1		
FB3	A-4 *	IC213	F-2 *	Q4	C-8	Q405	C-5 *	Q626	G-8 *	Q1005	K-3 *	RV522	E-7	TP203	G-2		
FB4	C-9	IC214	F-2 *	Q5	B-8	Q406	B-6 *	Q627	G-7	Q1006	K-3 *	RV523	D-7	TP206	F-1		
FB101	A-3	IC215	F-4 *	Q6	A-6 *	Q407	B-6 *	Q628	G-6 *	Q1007	K-3 *	RV524	D-7	TP207	F-4		
FB102	A-1 *	IC216	E-4	Q7	B-5 *	Q408	B-6 *	Q630	G-8	Q1008	K-1 *	RV531	F-8	TP208	F-3		
FB103	C-2 *	IC217	F-3	Q8	B-5 *	Q409	C-5 *	Q631	K-9	Q1009	K-1 *	RV532	E-8	TP301	E-4		



VRP-1 — A SIDE —
1-638-693-14 (1)
BVW-50
BVW-50P

VRP-1 ; Y/C SEPARATOR&CTDM
MODULATOR/DEMODULATOR
VIDEO OUTPUT/REC AMPLIFIER



VRP-1 — B SIDE —
1-638-693-14 (1)
BVW-50
BVW-50P

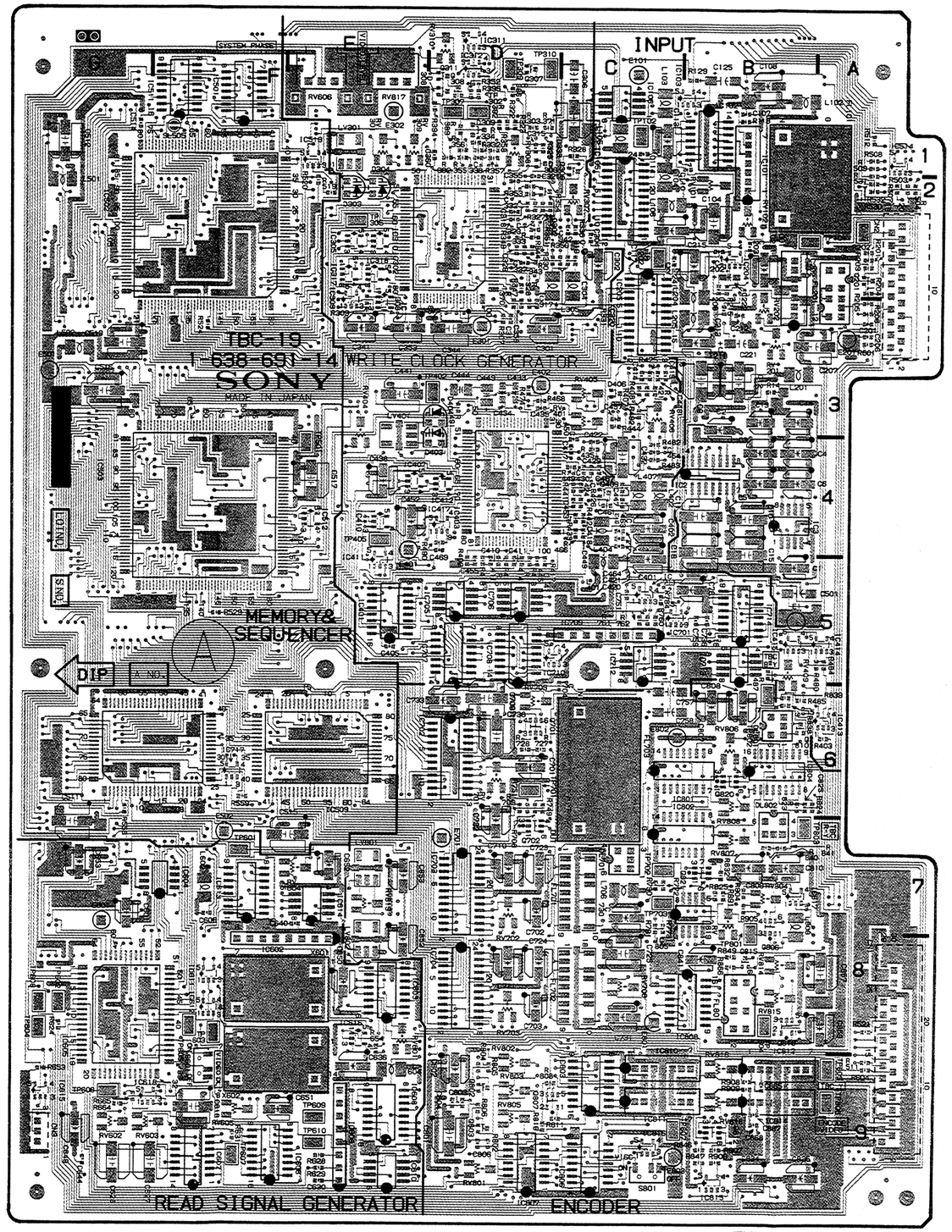
VRP-1 (1-638-693-14)

CN1	A-2 *	FB104	C-1	IC218	E-4	Q9	B-6 *	Q410	D-6 *	Q632	J-9	Q1010	K-2 *	RV533	E-8	TP302	F-6
CN2	A-3 *	FB105	B-1	IC219	D-4	Q10	A-4 *	Q411	D-6 *	Q633	G-6 *	Q1011	K-2 *	RV534	D-8	TP303	E-6
CN3	A-4 *	FB500	C-7	IC220	C-4	Q11	A-4	Q412	D-6 *	Q701	K-8 *	Q1012	K-2 *	RV541	F-8	TP304	F-6
CN4	C-9 *	FB501	C-7 *	IC221	D-3	Q12	A-4 *	Q413	D-6 *	Q702	J-7 *	Q1013	K-3 *	RV542	E-8	TP305	F-6
CN5	E-9			IC222	E-4	Q13	A-5	Q414	D-6 *	Q703	J-6 *	Q1014	K-2 *	RV543	D-8	TP306	E-6
CN6	G-9	FL1	B-5	IC223	E-3	Q14	B-4	Q415	D-6 *	Q704	J-6	Q1015	K-2 *	RV544	D-8	TP307	D-5
CN7	J-9 *	FL101	B-3	IC301	D-5	Q16	A-7	Q417	B-6 *	Q705	J-6	Q1017	K-4	RV601	G-7	TP308	E-6
CN8	E-9 *	FL102	A-1	IC302	F-5	Q17	B-4 *	Q418	C-6 *	Q706	J-7			RV602	H-7	TP401	C-4
CN9	H-9 *	FL103	B-3	IC303	E-6 *	Q18	B-5 *	Q419	C-6 *	Q707	H-8 *	RV1	A-6	RV603	H-7	TP402	D-6
CN10	B-2 *	FL104	B-3	IC401	C-5	Q19	B-4 *	Q420	C-6 *	Q708	J-6 *	RV2	A-6	RV604	H-7	TP403	C-6
CN501	E-8	FL201	F-4	IC402	C-6	Q21	B-4	Q500	D-7 *	Q709	H-8 *	RV3	A-5	RV605	G-6	TP407	B-5
CN502	E-8	FL301	F-5	IC501	F-8	Q101	A-3	Q501	E-7 *	Q710	J-8 *	RV5	B-7	RV606	H-6	TP408	D-5
CN503	E-7	FL401	D-5	IC502	C-7 *	Q102	B-3 *	Q502	E-7	Q712	J-6 *	RV7	A-7	RV607	H-7	TP501	E-7
CN601	G-9 *	FL801	H-4	IC503	E-8	Q103	B-2 *	Q503	F-7 *	Q713	J-8 *	RV8	A-8	RV608	F-7	TP502	E-7
CN602	H-8	FL802	H-2	IC504	E-8	Q104	B-2 *	Q504	F-8 *	Q714	J-7	RV9	B-8	RV609	F-6	TP503	D-7
CN603	K-8	FL803	G-2	IC505	D-8	Q105	A-3 *	Q505	F-8 *	Q730	J-8	RV10	B-7	RV610	F-8	TP504	D-7
CN604	K-8	FL901	J-3	IC506	C-8	Q106	A-1	Q506	E-7 *	Q731	K-9	RV101	A-3	RV611	F-7	TP505	D-9
				IC508	F-7 *	Q107	B-1 *	Q507	E-7	Q732	K-8	RV102	A-3	RV612	G-8	TP506	D-7
COP501	E-8	IC1	B-8	IC510	C-7	Q108	A-2	Q508	E-7 *	Q801	G-5	RV103	A-2	RV613	G-8	TP602	H-8
COP502	E-8	IC2	A-8	IC511	C-7	Q109	A-1	Q509	E-8 *	Q802	G-4	RV104	A-1	RV614	H-6	TP603	G-7
COP503	E-8	IC3	A-8 *	IC601	K-6	Q110	B-2 *	Q510	E-8 *	Q803	G-4	RV105	C-3	RV701	K-7	TP604	G-6
COP504	D-8	IC4	C-8 *	IC602	K-7	Q111	B-4	Q511	F-7 *	Q804	G-5 *	RV106	B-4	RV702	K-7	TP605	G-6
		IC5	A-4	IC603	K-6 *	Q113	C-4	Q512	F-7 *	Q805	G-4 *	RV201	G-3	RV703	J-7	TP606	G-6
COR501	E-8	IC6	B-4	IC604	H-7 *	Q114	D-4 *	Q513	F-7 *	Q806	G-4 *	RV203	E-1	RV704	K-7	TP607	G-8
COR502	E-8	IC7	A-6	IC605	H-8	Q115	B-2 *	Q514	F-7 *	Q807	G-4 *	RV204	E-1	RV705	J-6	TP610	H-9
COR503	E-8	IC8	A-4	IC606	G-7	Q116	B-2 *	Q515	D-7 *	Q808	H-5 *	RV206	F-1	RV706	J-6	TP701	H-9
COR504	D-8	IC9	B-6 *	IC607	G-5	Q117	A-2 *	Q516	D-7 *	Q809	H-4 *	RV207	F-1	RV707	K-7	TP702	K-8
		IC10	A-6 *	IC609	H-6 *	Q119	A-2	Q517	D-7	Q810	G-4 *	RV208	F-1	RV708	J-7	TP703	J-7
DL101	B-1	IC11	B-7	IC610	G-6 *	Q201	E-2 *	Q518	D-7 *	Q811	G-4 *	RV209	F-1	RV709	J-6	TP704	H-7
DL201	E-1	IC12	A-8 *	IC611	H-5 *	Q202	E-2 *	Q519	E-8 *	Q812	H-4 *	RV210	F-1	RV710	H-8	TP705	J-6
DL601	H-7	IC13	B-8 *	IC612	K-7	Q203	G-4 *	Q520	D-8 *	Q813	H-4 *	RV211	F-2	RV711	H-7	TP706	J-6
DL602	G-7	IC14	B-7 *	IC613	H-8	Q204	G-3 *	Q521	D-7 *	Q814	H-4 *	RV212	F-2	RV712	J-9	TP707	J-8
DL701	K-7	IC15	A-7 *	IC614	J-9	Q205	F-3 *	Q522	D-7	Q815	G-3 *	RV301	F-5	RV713	J-8	TP801	G-5
DL702	H-7	IC16	A-9	IC702	K-9	Q206	D-2 *	Q523	D-7 *	Q816	H-2 *	RV302	F-5	RV801	H-5	TP802	G-4
		IC17	A-6	IC703	J-7	Q207	E-2 *	Q524	D-8 *	Q817	H-3 *	RV303	F-6	RV802	J-2	TP803	H-2
D101	A-2 *	IC18	C-9	IC704	K-7 *	Q208	E-4 *	Q525	D-8 *	Q818	G-2 *	RV304	E-6	RV803	H-2	TP805	G-2
D102	A-2	IC101	B-3	IC706	J-6 *	Q209	E-4 *	Q526	C-7	Q821	H-2 *	RV306	D-5	RV804	H-4	TP901	J-5
D103	B-2 *	IC103	A-3	IC707	J-5	Q210	F-3 *	Q527	C-7 *	Q822	H-2	RV307	D-6	RV805	H-4	TP902	J-5
D111	A-2 *	IC104	A-1	IC708	K-8	Q211	F-3 *	Q528	C-8 *	Q823	H-2	RV308	D-6	RV806	G-4	TP903	J-2
D112	A-2 *	IC105	A-2 *	IC801	G-4	Q212	G-3 *	Q529	D-7 *	Q824	H-2	RV309	F-7	RV807	H-1	TP905	J-2
D121	A-2	IC108	B-2 *	IC802	H-2 *	Q213	F-1 *	Q530	E-6 *	Q825	H-2 *	RV310	E-7	RV901	J-5	TP906	J-3
D122	A-2	IC109	B-1 *	IC803	H-1	Q214	F-1 *	Q601	K-6 *	Q826	H-2 *	RV311	E-6	RV902	J-3		
D201	G-3	IC110	C-1	IC804	G-1	Q215	F-1 *	Q602	K-5	Q827	H-1 *	RV312	E-7	RV903	J-3	T501	F-8
D202	E-3	IC111	C-1	IC806	K-6	Q216	F-3 *	Q603	K-6	Q901	J-5	RV313	D-6	RV904	K-4	T502	E-8
D203	E-4 *	IC112	C-3	IC807	H-4 *	Q218	F-3 *	Q604	K-6	Q902	J-4	RV314	E-6	RV905	K-4	T503	E-8
D204	D-4	IC113	D-3	IC818	H-2 *	Q219	F-4	Q605	H-8 *	Q903	J-4	RV401	D-5	RV906	J-4	T504	D-8
D301	F-5 *	IC114	C-3 *	IC901	J-4	Q301	E-5 *	Q606	H-8 *	Q904	J-5 *	RV406	B-5	RV907	J-1		
D500	C-7	IC115	C-4 *	IC902	J-2	Q302	E-5 *	Q607	G-7 *	Q905	J-4 *	RV407	B-6	RV1001	K-2	X201	E-4
D1001	K-4	IC116	B-4	IC903	J-2	Q303	F-5 *	Q608	H-6	Q906	J-4 *	RV408	B-6			X202	E-1
D1002	K-1 *	IC118	C-3 *	IC907	K-5 *	Q304	F-5 *	Q609	H-6	Q907	K-4 *	RV409	C-6	S1	B-9		
D1003	K-2	IC120	B-2	IC918	J-2 *	Q306	F-6 *	Q610	G-6	Q908	K-4 *	RV410	C-7	S2	H-6 *	* mark; B SIDE mount.	
		IC121	C-1	IC1001	K-2	Q307	E-5 *	Q611	G-6 *	Q909	J-3 *	RV411	D-6	S201	F-1		
E1	A-6	IC122	B-1	IC1002	K-4 *	Q308	D-6 *	Q612	G-6	Q910	J-2 *	RV412	D-7				
E101	B-3	IC201	E-2	IC1003	K-3	Q309	D-6 *	Q613	G-6 *	Q913	J-2	RV413	B-6	TP1	B-4		
E201	E-1	IC203	E-3 *	IC1004	K-1	Q310	D-6 *	Q614	G-6	Q914	J-2	RV414	D-6	TP2	A-4		
E301	F-6	IC204	F-2	IC1005	K-4	Q311	E-5 *	Q615	G-6	Q915	K-2	RV501	F-7	TP3	A-4		
E401	D-6	IC205	F-4	IC1006	K-5	Q312	E-6 *	Q617	G-6 *	Q916	J-3 *	RV502	E-7	TP5	A-6		
E601	H-7	IC206	E-4	IC1007	K-3	Q314	E-6 *	Q618	G-6	Q917	J-2 *	RV503	E-7	TP6	A-6		
E701	K-7	IC207	E-3 *			Q315	E-6 *	Q619	G-7	Q918	J-2 *	RV504	D-7	TP7	A-5		
E801	G-2	IC208	E-2 *	LV201	E-3	Q316	E-6 *	Q620	G-5 *	Q919	K-2	RV511	F-7	TP8	A-5		
E901	J-2	IC209	G-4			Q317	E-6 *	Q621	G-7 *	Q1001	K-5	RV512	E-7	TP101	B-2		
		IC210	E-1 *	Q1	B-8 *	Q402	D-5 *	Q622	G-8 *	Q1002	K-4	RV513	D-7	TP102	A-1		
FB1	A-5 *	IC211	F-1 *	Q2	C-8	Q403	D-5 *	Q623	F-8 *	Q1003	K-3 *	RV514	D-7	TP201	E-3		
FB2	A-5 *	IC212	F-1 *	Q3	C-8	Q404	C-5 *	Q624	F-8 *	Q1004	K-3 *	RV521	F-7	TP202	F-1		
FB3	A-4 *	IC213	F-2 *	Q4	C-8	Q405	C-5 *	Q626	G-8 *	Q1005	K-3 *	RV522	E-7	TP203	G-2		
FB4	C-9	IC214	F-2 *	Q5	B-8	Q406	B-6 *	Q627	G-7	Q1006	K-3 *	RV523	D-7	TP206	F-1		
FB101	A-3	IC215	F-4 *	Q6	A-6 *	Q407	B-6 *	Q628	G-6 *	Q1007	K-3 *	RV524	D-7	TP207	F-4		
FB102	A-1 *	IC216	E-4	Q7	B-5 *	Q408	B-6 *	Q630	G-8	Q1008	K-1 *	RV531	F-8	TP208	F-3		
FB103	C-2 *	IC217	F-3	Q8	B-5 *	Q409	C-5 *	Q631	K-9	Q1009	K-1 *	RV532	E-8	TP301	E-4		

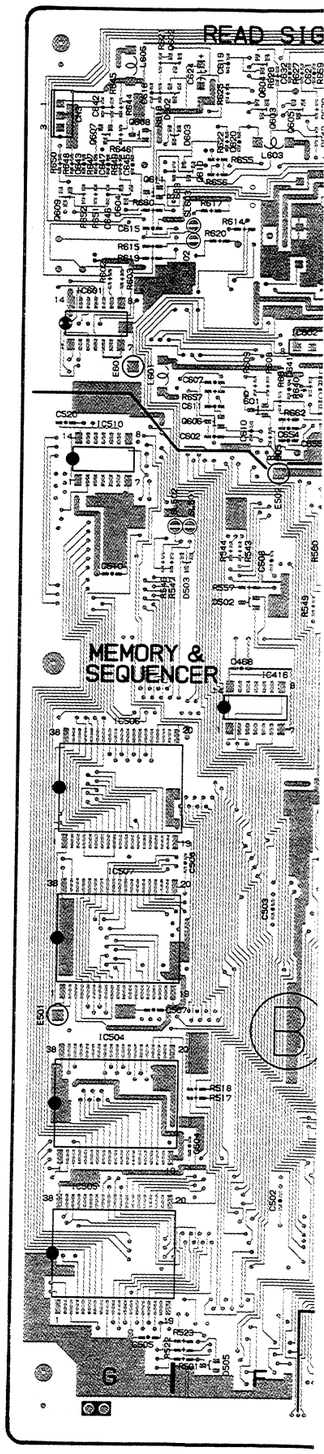
TBC-19 ; TIME BASE CORRECTOR VIDEO ENCODER

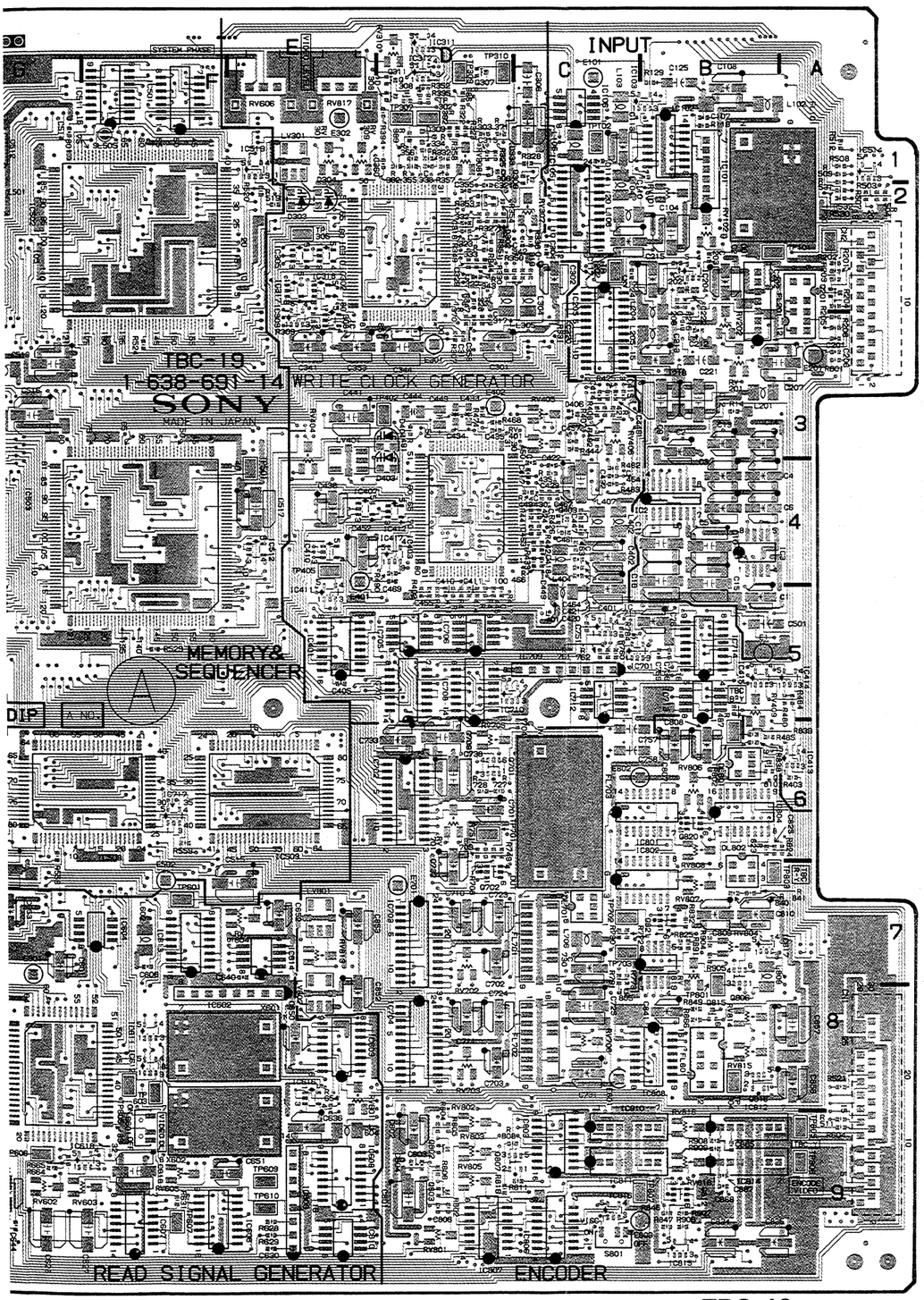
TBC-19 (1-638-691-14)

CN1	A-8 *	IC103	C-1	IC704	D-8	Q607	G-9 *	RV814	B-8
CN2	A-2 *	IC104	C-2 *	IC705	D-5	Q608	G-9 *	RV815	B-8
CN3	G-9 *	IC105	C-1	IC706	D-5	Q609	G-9 *	RV816	B-9
		IC106	C-1	IC707	D-5	Q610	F-9 *	RV817	E-1
DL701	C-7	IC201	B-2 *	IC708	D-5	Q611	G-9 *	RV818	B-9
DL801	B-6	IC202	B-2	IC709	C-5	Q701	D-6	RV819	B-7
DL802	B-6	IC204	B-2	IC710	D-5	Q702	D-7		
		IC205	C-2	IC711	C-5	Q707	C-7 *	S601	F-9
D101	C-2 *	IC301	C-1 *	IC712	C-5	Q708	C-8 *	S801	C-9
D201	C-3 *	IC302	E-2	IC713	B-5	Q709	C-7 *		
D302	D-2	IC303	C-2 *	IC714	B-5	Q710	C-8 *	TH301	D-2 *
D303	E-2	IC304	E-2 *	IC715	E-6 *	Q715	B-5 *	TH302	D-1 *
D304	E-1	IC305	E-2	IC716	E-6 *	Q716	B-5 *	TH401	C-4 *
D306	D-1	IC306	C-2 *	IC717	F-6	Q801	D-9 *	TH402	C-3 *
D307	D-1 *	IC308	E-3	IC801	B-6	Q802	D-9		
D308	E-1	IC309	E-3	IC802	B-6	Q803	D-9	TP101	A-2
D309	D-1	IC310	E-2	IC803	C-9	Q804	D-9 *	TP102	C-1
D402	C-4 *	IC311	D-1	IC804	B-6	Q805	D-9 *	TP201	A-2
D403	D-4	IC312	D-1	IC805	C-8	Q806	B-8	TP202	C-2
D404	D-3	IC317	E-2	IC806	C-9	Q807	D-9	TP302	D-1
D406	C-3	IC318	E-2	IC807	D-9	Q808	B-6 *	TP305	E-2
D407	D-4	IC401	E-5	IC808	B-8	Q809	B-6 *	TP307	D-1
D409	D-3 *	IC403	D-4	IC810	C-8	Q810	B-6	TP309	D-1
D501	B-5 *	IC404	C-3 *	IC811	C-9	Q811	B-7 *	TP310	D-1
D502	F-6 *	IC405	C-3 *	IC812	B-8	Q812	B-9	TP402	D-3
D503	F-6 *	IC406	D-4 *	IC814	B-9	Q813	C-9 *	TP405	E-4
D504	F-4 *	IC407	E-4	IC815	B-9	Q814	E-7 *	TP501	E-4
D505	F-1 *	IC408	C-4 *	IC816	C-9	Q815	B-8 *	TP601	F-7
D506	F-6 *	IC410	E-4	IC817	A-7	Q816	B-8 *	TP602	G-8
D602	G-9 *	IC411	E-5			Q817	E-8 *	TP603	F-8
D603	G-9 *	IC412	D-4	LV301	E-1	Q818	B-8	TP604	G-8
D604	G-9 *	IC413	A-6	LV401	E-3	Q819	C-9 *	TP605	F-9
D701	B-5 *	IC415	B-5	LV801	E-7	Q820	B-6	TP606	G-9
D702	C-5 *	IC416	F-5 *	LV802	E-8	Q821	B-7	TP607	F-9
D703	B-5 *	IC417	D-4			Q822	D-7 *	TP608	G-8
D704	B-5 *	IC501	F-1	Q1	B-5 *			TP609	E-9
		IC502	G-2	Q2	B-4 *	RV101	B-2	TP610	E-9
E1	B-5	IC503	G-4	Q3	B-4 *	RV102	B-2	TP701	D-6
E101	C-1	IC504	G-3 *	Q4	B-4 *	RV201	B-3	TP702	C-7
E201	A-3	IC505	G-2 *	Q5	B-4 *	RV202	B-3	TP703	C-7
E301	D-3	IC506	G-5 *	Q6	B-4 *	RV301	E-1	TP801	B-8
E302	E-1	IC507	G-4 *	Q101	A-1 *	RV307	C-2	TP802	B-6
E401	E-5	IC508	F-6	Q102	B-2 *	RV308	D-1	TP803	A-7
E402	D-3	IC509	E-6	Q201	A-2	RV309	E-1	TP804	B-8
E501	G-3	IC510	G-7 *	Q202	A-2 *	RV310	D-1	TP805	A-9
E502	F-7	IC511	G-1	Q301	D-3 *	RV401	C-3	TP806	A-9
E601	G-7	IC512	E-4	Q302	D-3 *	RV404	E-3	TP807	B-9
E701	D-7	IC514	A-1	Q303	D-1 *	RV405	C-3		
E801	C-8	IC601	G-8 *	Q304	E-1 *	RV406	C-3	X601	E-8
E802	C-6	IC602	F-8	Q305	E-1 *	RV409	B-5	X602	F-9
E803	B-9	IC603	E-8	Q306	C-1	RV601	E-8		
		IC604	F-7	Q307	D-1	RV602	G-9	* mark; B SIDE mount.	
FB601	E-8 *	IC605	G-8	Q308	D-1	RV603	F-9		
FB602	E-9 *	IC606	E-9	Q309	D-1 *	RV605	F-9		
		IC607	F-9	Q310	D-1 *	RV606	E-1		
FL101	A-1	IC608	E-9	Q311	D-1	RV701	D-6		
FL201	A-2	IC609	E-9	Q401	E-5 *	RV702	D-8		
FL701	C-7	IC610	E-9	Q402	D-5 *	RV703	D-8		
FL702	C-8	IC611	F-8	Q403	C-4	RV705	D-6		
FL703	C-6	IC612	F-8	Q404	E-3 *	RV706	C-8		
FL801	B-8	IC613	F-7	Q405	E-4 *	RV801	D-9		
		IC614	E-7	Q406	E-3 *	RV802	D-8		
IC1	B-3 *	IC615	G-9	Q407	C-3 *	RV803	D-9		
IC2	B-4	IC616	E-8	Q601	F-7 *	RV804	B-7		
IC3	A-4	IC617	F-8 *	Q602	G-9 *	RV805	D-9		
IC4	B-4 *	IC618	F-9	Q603	F-9 *	RV806	B-6		
IC5	A-3 *	IC701	B-5	Q604	F-9 *	RV807	B-7		
IC101	B-1	IC702	D-6	Q605	F-9 *	RV808	B-7		
IC102	B-1	IC703	D-7	Q606	F-7 *	RV813	E-7		

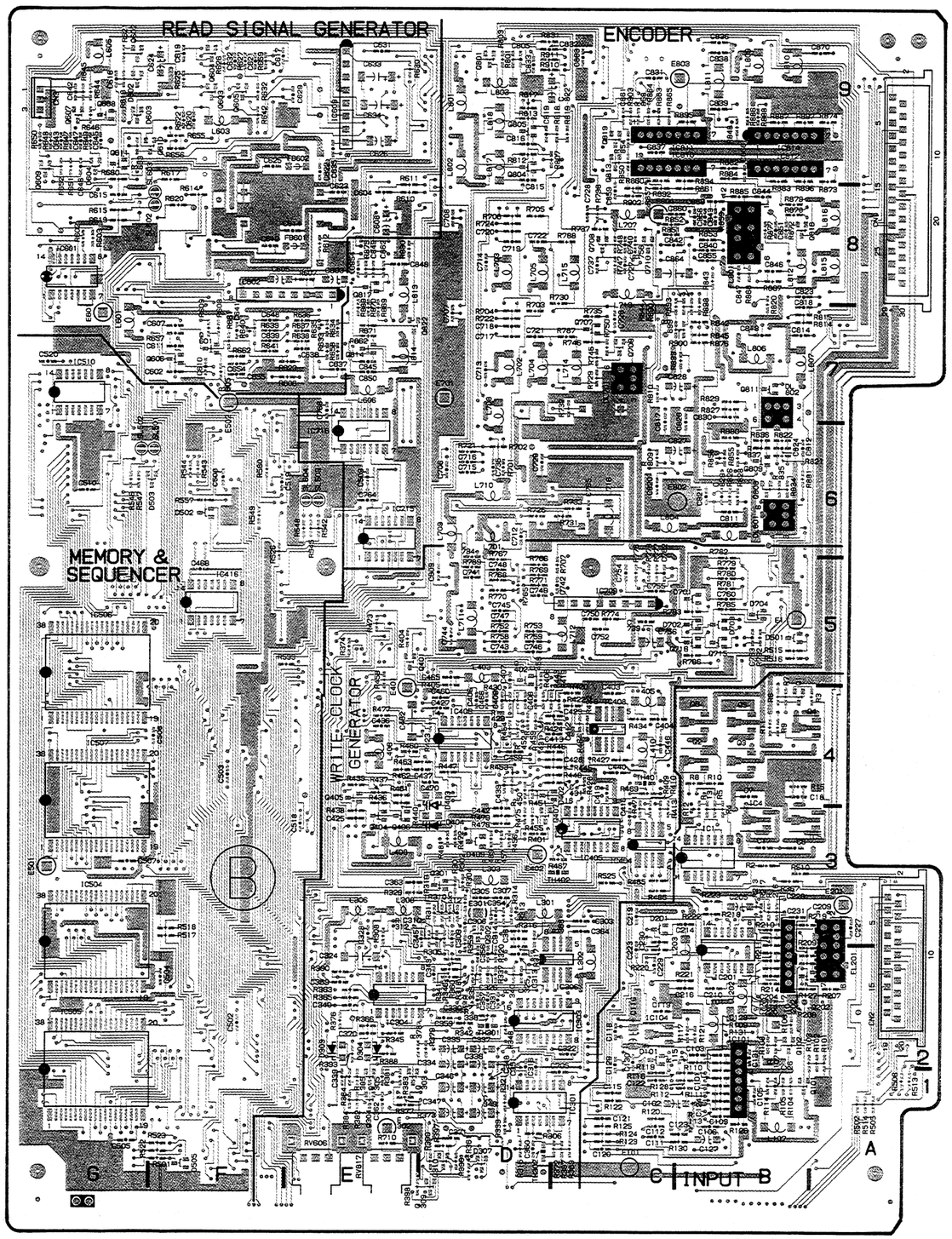


TBC-19 — A SIDE —
1-638-691-14 (1)
BVW-50
BVW-50P



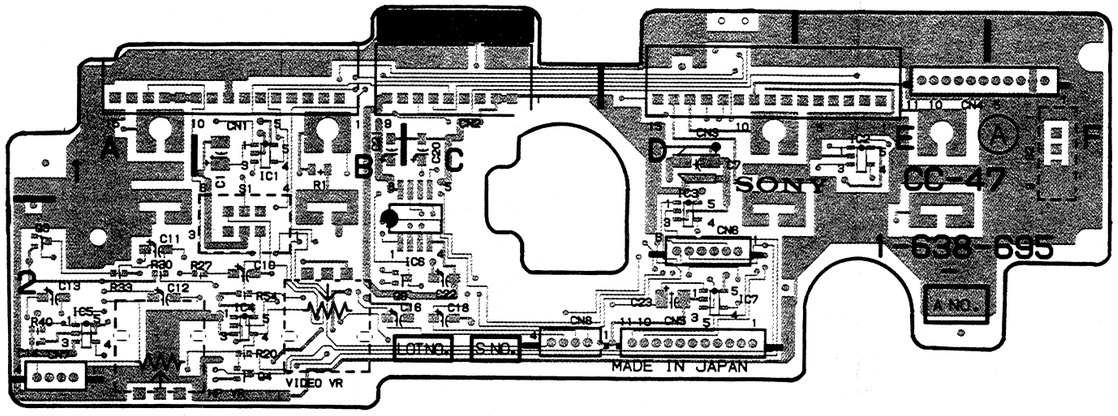


TBC-19 — A SIDE —
1-638-691-14 (1)
BVW-50
BVW-50P

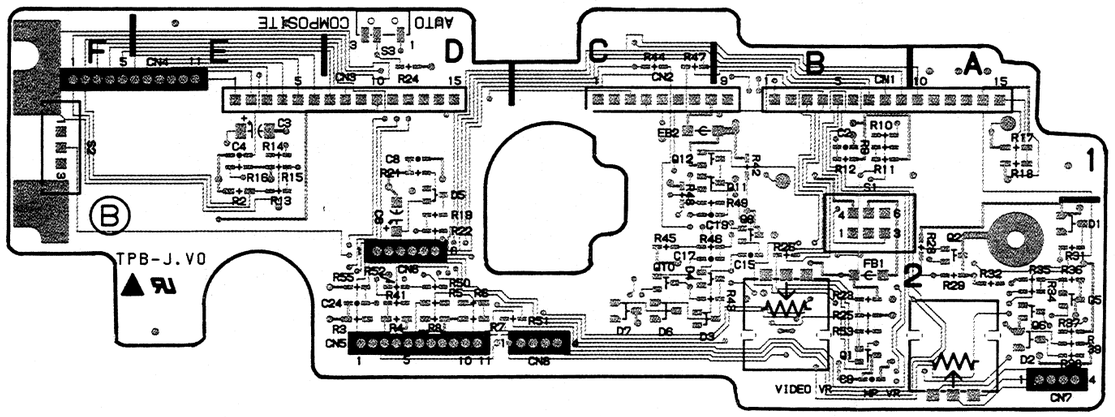


TBC-19 — B SIDE —
1-638-691-14 (1)
BVW-50
BVW-50P

CC-47 ; VIDEO INPUT/METER DRIVER



CC-47 — A SIDE —
1-638-695-13 (1)
BVW-50
BVW-50P

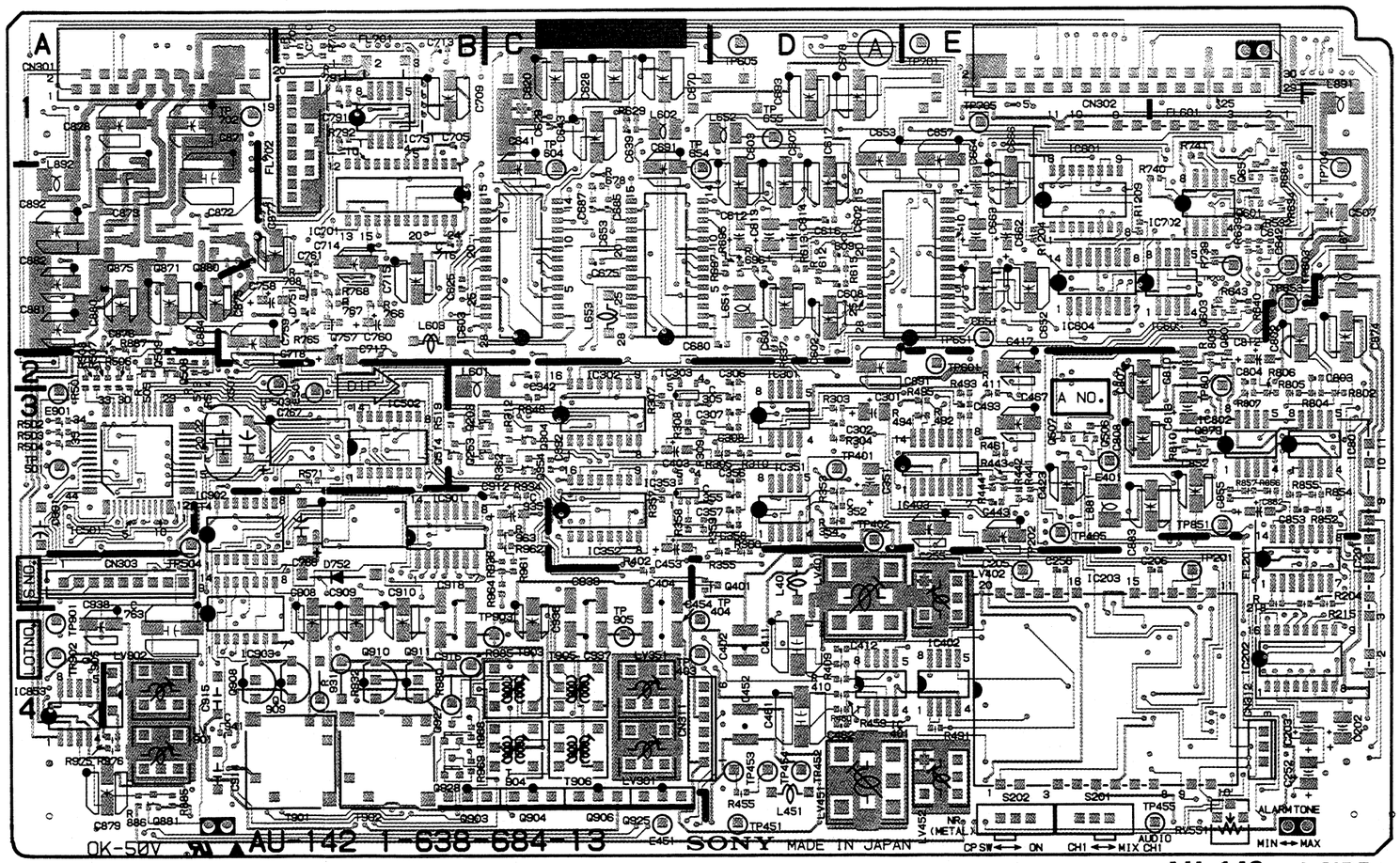


CC-47 — B SIDE —
1-638-695-13 (1)
BVW-50
BVW-50P

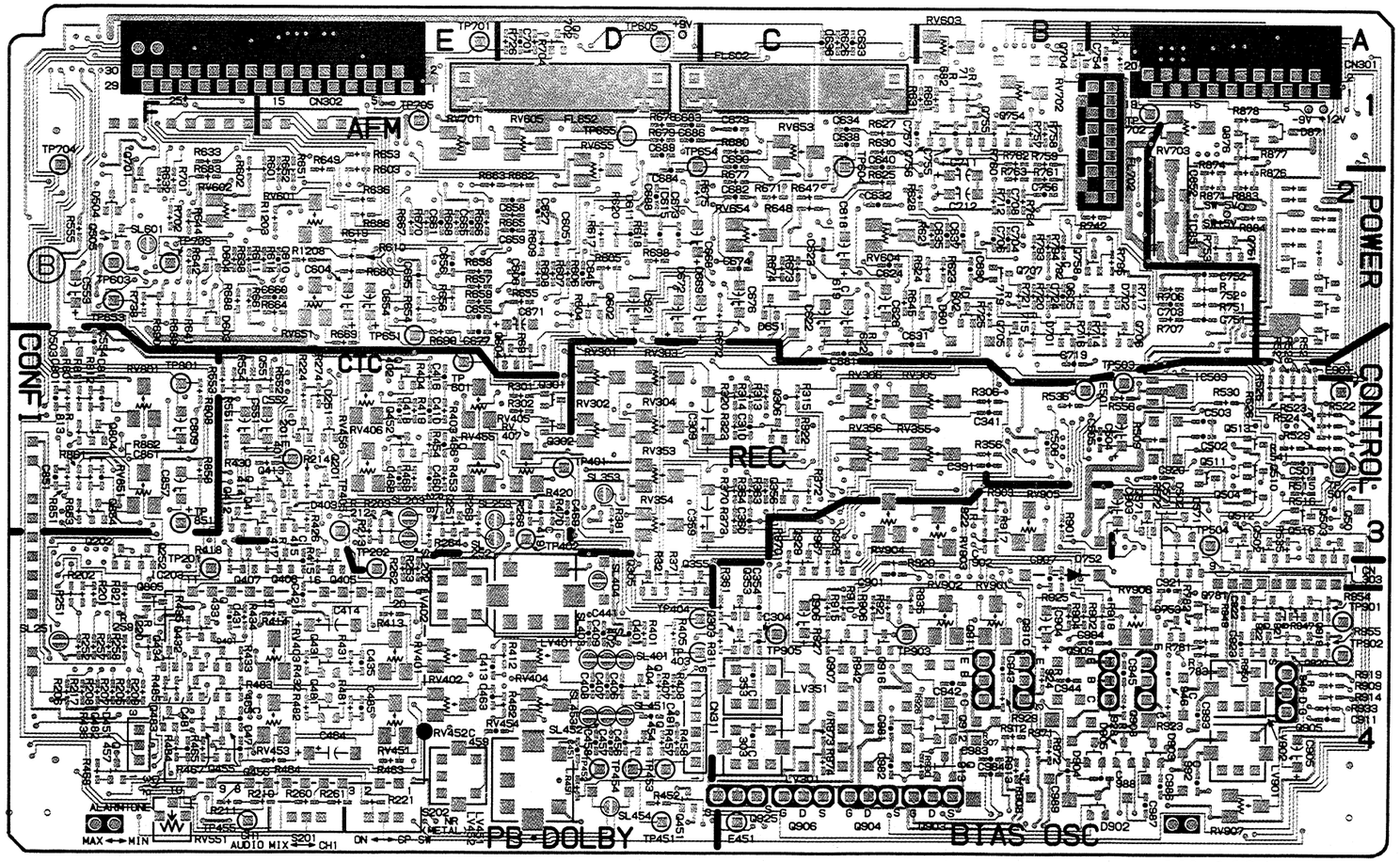
AU-142; LNG AUDIO REC/PB SYSTEM
AFM REC/PB SYSTEM

AU-142 (1-638-684-13)

CN301	A-1	IC851	A-2 *	Q516	A-3 *	RV452	E-4 *	T905	C-4
CN302	E-1	IC852	A-2 *	Q551	E-2 *	RV453	E-4 *	T906	C-4
CN303	A-3	IC853	A-4	Q601	F-2	RV454	D-4 *		
CN311	C-4	IC901	B-3	Q602	D-2 *	RV455	E-3 *	X501	A-3
CN312	F-4	IC902	A-3	Q603	F-2	RV456	E-3 *		
		IC903	A-4	Q604	D-2 *	RV551	F-4	* mark; B SIDE mount.	
D201	E-3 *			Q605	B-2 *	RV601	E-2 *		
D251	E-3 *	LV301	C-4	Q651	F-2	RV602	F-2 *		
D201	E-3 *	LV351	C-4	Q701	F-2 *	RV603	B-1 *		
D403	E-3 *	LV401	D-3	Q702	D-1 *	RV604	C-2 *		
D451	F-4 *	LV402	E-3	Q704	B-1 *	RV605	D-1 *		
D502	A-3 *	LV451	D-4	Q705	B-2 *	RV651	E-2 *		
D503	F-2 *	LV452	E-4	Q706	A-2 *	RV653	C-1 *		
D504	F-2 *	LV901	A-4	Q707	B-2 *	RV654	C-2 *		
D571	A-3 *	LV902	A-4	Q751	A-2 *	RV655	D-2 *		
D601	B-2 *			Q754	B-1 *	RV701	E-1 *		
D602	B-2 *	Q201	E-3 *	Q755	B-1 *	RV702	B-1 *		
D603	F-2 *	Q202	F-3 *	Q756	C-1 *	RV703	A-1 *		
D604	F-2 *	Q203	B-3	Q757	B-2	RV801	F-3 *		
D651	C-2 *	Q251	E-3 *	Q758	B-2 *	RV851	F-3 *		
D701	B-2 *	Q252	F-3 *	Q781	A-4 *	RV901	B-4 *		
D702	A-2 *	Q253	B-3	Q801	F-2	RV902	B-4 *		
D751	B-2	Q301	D-3 *	Q804	F-3 *	RV903	B-3 *		
D752	B-3	Q302	D-3 *	Q805	F-4 *	RV904	C-3 *		
D753	A-4 *	Q303	C-4 *	Q871	A-2	RV905	B-3 *		
D871	A-1 *	Q304	C-3	Q875	A-2	RV906	A-4 *		
D902	A-4 *	Q305	D-3 *	Q876	A-1 *	RV907	A-4 *		
D903	A-4 *	Q306	C-3 *	Q879	F-3				
D904	B-4 *	Q353	C-3 *	Q880	A-2	S201	E-4		
D905	A-4 *	Q354	C-3	Q881	A-4	S202	E-4		
		Q355	D-3 *	Q903	B-4				
E401	E-3	Q356	C-3 *	Q904	C-4	TP201	F-3		
E451	C-4	Q401	D-3	Q905	A-4	TP202	E-3		
E501	B-3	Q402	E-2 *	Q906	C-4	TP401	D-3		
E901	A-3	Q404	D-4 *	Q907	C-4 *	TP402	D-3		
		Q405	E-3 *	Q908	A-4	TP403	C-4		
FL201	F-3	Q406	E-3 *	Q909	A-4	TP404	D-4		
FL601	F-1	Q407	F-3 *	Q910	B-4	TP405	E-3		
FL602	C-1 *	Q411	F-3 *	Q911	B-4	TP451	D-4		
FL652	D-1 *	Q412	F-3 *	Q912	B-4 *	TP452	D-4		
FL701	B-1	Q413	E-3 *	Q913	B-4 *	TP453	D-4		
FL702	A-1	Q414	E-3 *	Q916	C-4 *	TP454	D-4		
		Q431	E-4 *	Q919	A-4 *	TP455	F-4		
IC201	F-3	Q432	F-4 *	Q920	A-4 *	TP501	A-3		
IC202	F-4	Q433	F-4 *	Q921	A-4 *	TP503	A-3		
IC203	E-4	Q434	F-4 *	Q922	A-4 *	TP601	E-2		
IC301	D-2	Q451	D-4 *	Q925	C-4	TP603	F-2		
IC302	C-2	Q452	E-3 *	Q926	C-3 *	TP604	C-1		
IC303	C-2	Q454	D-4 *	Q927	B-4	TP605	D-1		
IC351	D-3	Q455	F-4 *	Q928	B-4	TP651	E-2		
IC352	C-3	Q456	F-4 *	Q929	C-3 *	TP653	F-2		
IC353	C-3	Q457	F-4 *			TP654	D-1		
IC401	D-4	Q481	E-4 *	RV301	D-2 *	TP655	D-1		
IC402	E-4	Q482	F-4 *	RV302	D-3 *	TP701	E-1		
IC403	E-3	Q483	F-4 *	RV303	D-2 *	TP702	A-1		
IC501	A-3	Q501	A-3 *	RV304	D-3 *	TP703	F-2		
IC502	B-3	Q502	A-3 *	RV305	B-3 *	TP704	F-2		
IC503	A-3 *	Q503	A-3 *	RV306	C-3 *	TP705	E-1		
IC601	E-1	Q504	A-3 *	RV353	D-3 *	TP801	F-2		
IC602	D-2	Q505	F-2 *	RV354	D-3 *	TP851	F-3		
IC603	B-2	Q506	E-3	RV355	B-3 *	TP901	A-4		
IC604	E-2	Q507	E-3	RV356	C-3 *	TP902	A-4		
IC605	F-2	Q508	A-2	RV402	E-4 *	TP903	C-4		
IC653	C-2	Q509	A-2	RV403	E-4 *	TP905	C-4		
IC701	B-2	Q510	A-3 *	RV404	D-4 *				
IC702	F-2	Q511	A-3 *	RV405	D-3 *	T901	B-4		
IC751	B-1	Q512	A-3 *	RV406	E-3 *	T902	B-4		
IC801	F-3	Q513	A-3 *	RV407	D-3 *	T903	C-4		
IC802	F-3	Q514	B-3	RV451	E-4 *	T904	C-4		



AU-142; LNG AUDIO REC/PB SYSTEM
AFM REC/PB SYSTEM



AU-142 — B SIDE —
1-638-684-13 (1)
BVW-50
BVW-50P

AU-142 (1-638-684-13)

CN301	A-1	IC851	A-2 *	Q516	A-3 *	RV452	E-4 *	T905	C-4
CN302	E-1	IC852	A-2 *	Q551	E-2 *	RV453	E-4 *	T906	C-4
CN303	A-3	IC853	A-4	Q601	F-2	RV454	D-4 *		
CN311	C-4	IC901	B-3	Q602	D-2 *	RV455	E-3 *	X501	A-3
CN312	F-4	IC902	A-3	Q603	F-2	RV456	E-3 *		
		IC903	A-4	Q604	D-2 *	RV551	F-4	* mark; B SIDE mount.	
D201	E-3 *			Q605	B-2 *	RV601	E-2 *		
D251	E-3 *	LV301	C-4	Q651	F-2	RV602	F-2 *		
D201	E-3 *	LV351	C-4	Q701	F-2 *	RV603	B-1 *		
D403	E-3 *	LV401	D-3	Q702	D-1 *	RV604	C-2 *		
D451	F-4 *	LV402	E-3	Q704	B-1 *	RV605	D-1 *		
D502	A-3 *	LV451	D-4	Q705	B-2 *	RV651	E-2 *		
D503	F-2 *	LV452	E-4	Q706	A-2 *	RV653	C-1 *		
D504	F-2 *	LV901	A-4	Q707	B-2 *	RV654	C-2 *		
D571	A-3 *	LV902	A-4	Q751	A-2 *	RV655	D-2 *		
D601	B-2 *			Q754	B-1 *	RV701	E-1 *		
D602	B-2 *	Q201	E-3 *	Q755	B-1 *	RV702	B-1 *		
D603	F-2 *	Q202	F-3 *	Q756	C-1 *	RV703	A-1 *		
D604	F-2 *	Q203	B-3	Q757	B-2	RV801	F-3 *		
D651	C-2 *	Q251	E-3 *	Q758	B-2 *	RV851	F-3 *		
D701	B-2 *	Q252	F-3 *	Q781	A-4 *	RV901	B-4 *		
D702	A-2 *	Q253	B-3	Q801	F-2	RV902	B-4 *		
D751	B-2	Q301	D-3 *	Q804	F-3 *	RV903	B-3 *		
D752	B-3	Q302	D-3 *	Q805	F-4 *	RV904	C-3 *		
D753	A-4 *	Q303	C-4 *	Q871	A-2	RV905	B-3 *		
D871	A-1 *	Q304	C-3	Q875	A-2	RV906	A-4 *		
D902	A-4 *	Q305	D-3 *	Q876	A-1 *	RV907	A-4 *		
D903	A-4 *	Q306	C-3 *	Q879	F-3				
D904	B-4 *	Q353	C-3 *	Q880	A-2	S201	E-4		
D905	A-4 *	Q354	C-3	Q881	A-4	S202	E-4		
		Q355	D-3 *	Q903	B-4				
E401	E-3	Q356	C-3 *	Q904	C-4	TP201	F-3		
E451	C-4	Q401	D-3	Q905	A-4	TP202	E-3		
E501	B-3	Q402	E-2 *	Q906	C-4	TP401	D-3		
E901	A-3	Q404	D-4 *	Q907	C-4 *	TP402	D-3		
		Q405	E-3 *	Q908	A-4	TP403	C-4		
FL201	F-3	Q406	E-3 *	Q909	A-4	TP404	D-4		
FL601	F-1	Q407	F-3 *	Q910	B-4	TP405	E-3		
FL602	C-1 *	Q411	F-3 *	Q911	B-4	TP451	D-4		
FL652	D-1 *	Q412	F-3 *	Q912	B-4 *	TP452	D-4		
FL701	B-1	Q413	E-3 *	Q913	B-4 *	TP453	D-4		
FL702	A-1	Q414	E-3 *	Q916	C-4 *	TP454	D-4		
		Q431	E-4 *	Q919	A-4 *	TP455	F-4		
IC201	F-3	Q432	F-4 *	Q920	A-4 *	TP501	A-3		
IC202	F-4	Q433	F-4 *	Q921	A-4 *	TP503	A-3		
IC203	E-4	Q434	F-4 *	Q922	A-4 *	TP601	E-2		
IC301	D-2	Q451	D-4 *	Q925	C-4	TP603	F-2		
IC302	C-2	Q452	E-3 *	Q926	C-3 *	TP604	C-1		
IC303	C-2	Q454	D-4 *	Q927	B-4	TP605	D-1		
IC351	D-3	Q455	F-4 *	Q928	B-4	TP651	E-2		
IC352	C-3	Q456	F-4 *	Q929	C-3 *	TP653	F-2		
IC353	C-3	Q457	F-4 *			TP654	D-1		
IC401	D-4	Q481	E-4 *	RV301	D-2 *	TP655	D-1		
IC402	E-4	Q482	F-4 *	RV302	D-3 *	TP701	E-1		
IC403	E-3	Q483	F-4 *	RV303	D-2 *	TP702	A-1		
IC501	A-3	Q501	A-3 *	RV304	D-3 *	TP703	F-2		
IC502	B-3	Q502	A-3 *	RV305	B-3 *	TP704	F-2		
IC503	A-3 *	Q503	A-3 *	RV306	C-3 *	TP705	E-1		
IC601	E-1	Q504	A-3 *	RV353	D-3 *	TP801	F-2		
IC602	D-2	Q505	F-2 *	RV354	D-3 *	TP851	F-3		
IC603	B-2	Q506	E-3	RV355	B-3 *	TP901	A-4		
IC604	E-2	Q507	E-3	RV356	C-3 *	TP902	A-4		
IC605	F-2	Q508	A-2	RV402	E-4 *	TP903	C-4		
IC653	C-2	Q509	A-2	RV403	E-4 *	TP905	C-4		
IC701	B-2	Q510	A-3 *	RV404	D-4 *				
IC702	F-2	Q511	A-3 *	RV405	D-3 *	T901	B-4		
IC751	B-1	Q512	A-3 *	RV406	E-3 *	T902	B-4		
IC801	F-3	Q513	A-3 *	RV407	D-3 *	T903	C-4		
IC802	F-3	Q514	B-3	RV451	E-4 *	T904	C-4		

12-7

VR-118; AUDIO LEVEL CONTROL POWER SWITCH

VR-118 (1-638-692-12)

CN551 A-2
CN552 A-1
CN553 B-1
CN554 B-1
CN555 C-1
CN556 C-1
CN557 A-2

D301 B-1 *
D302 C-1 *

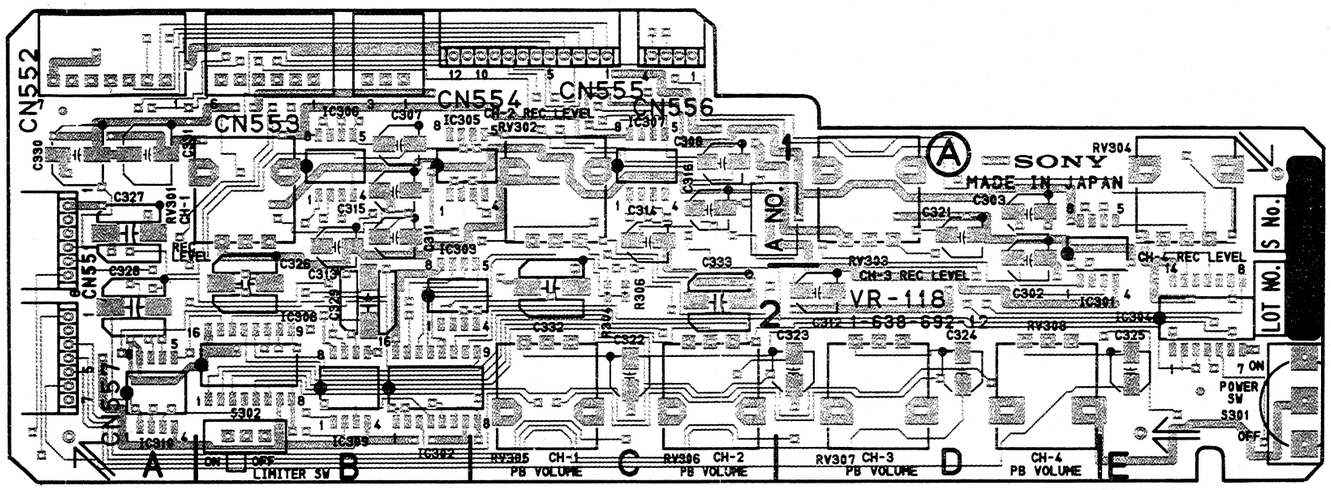
IC301 D-2
IC302 B-2
IC303 B-1
IC304 E-2
IC305 B-1
IC306 B-1
IC307 C-1
IC308 B-2
IC309 B-2
IC310 A-2

Q301 C-1 *
Q302 D-2 *
Q303 B-2 *
Q304 C-2 *
Q305 B-1 *
Q306 C-1 *
Q307 B-2 *
Q308 C-2 *
Q309 B-2 *
Q310 D-2 *
Q311 B-1 *
Q312 D-2 *
Q313 B-2 *
Q314 C-1 *

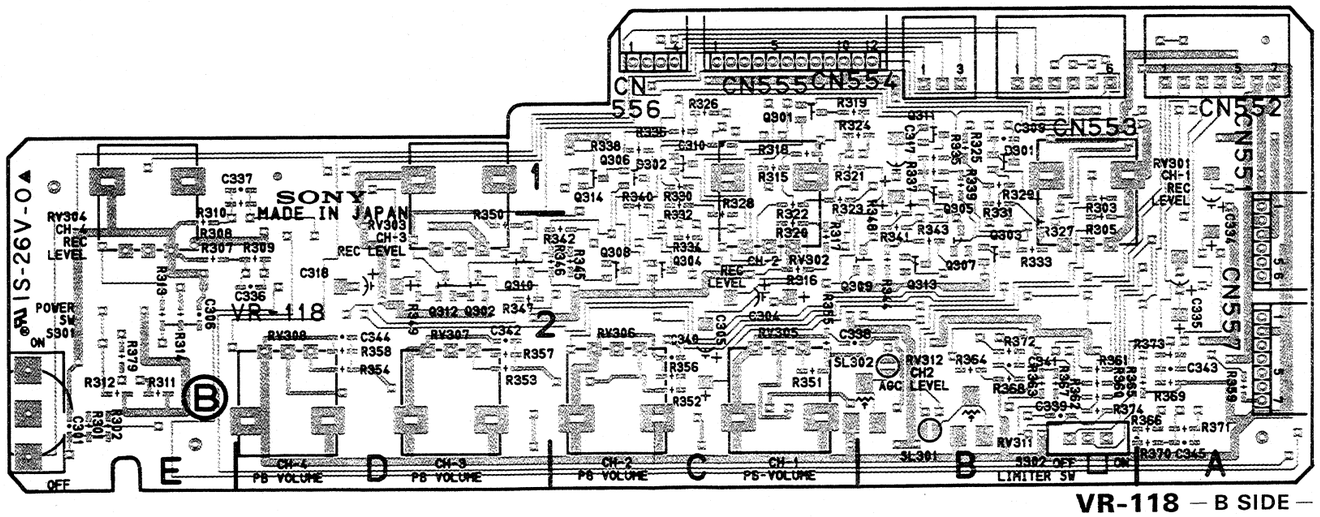
RV301 A-1
RV302 C-1
RV303 D-1
RV304 E-1
RV305 C-2
RV306 C-2
RV307 D-2
RV308 D-2
RV311 B-2 *
RV312 B-2 *

S301 E-2
S302 B-2

* mark; B SIDE mount.

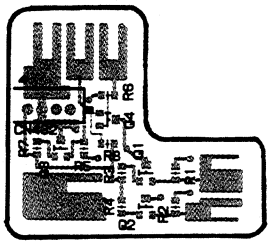


VR-118 — A SIDE —
1-638-692-12 (1)
BVW-50
BVW-50P

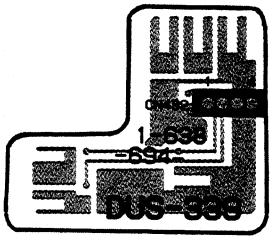


VR-118 — B SIDE —
1-638-692-12 (1)
BVW-50
BVW-50P

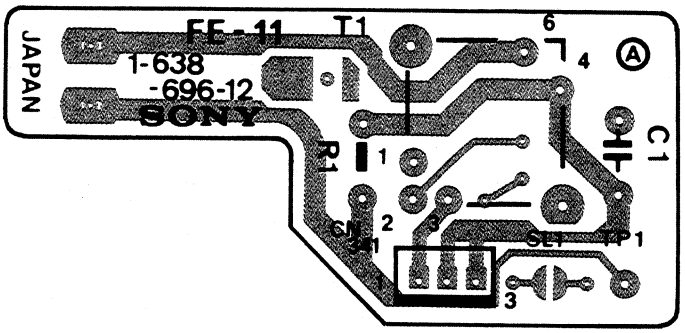
DUS-339 ; PHONES JACK
FE-11 ; FULL ERASE OSCILLATOR



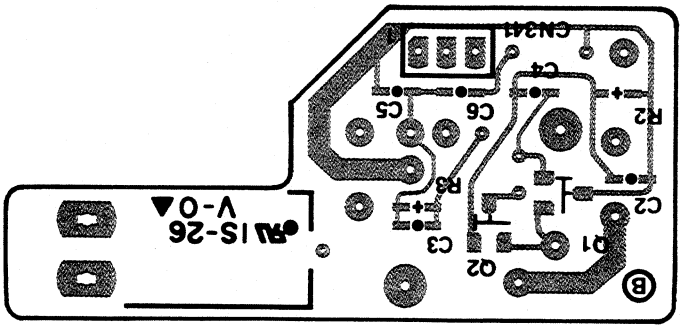
DUS-339 — A SIDE —
1-638-694-13 (1)
BVW-50
BVW-50P



DUS-339 — B SIDE —
1-638-694-13 (1)
BVW-50
BVW-50P

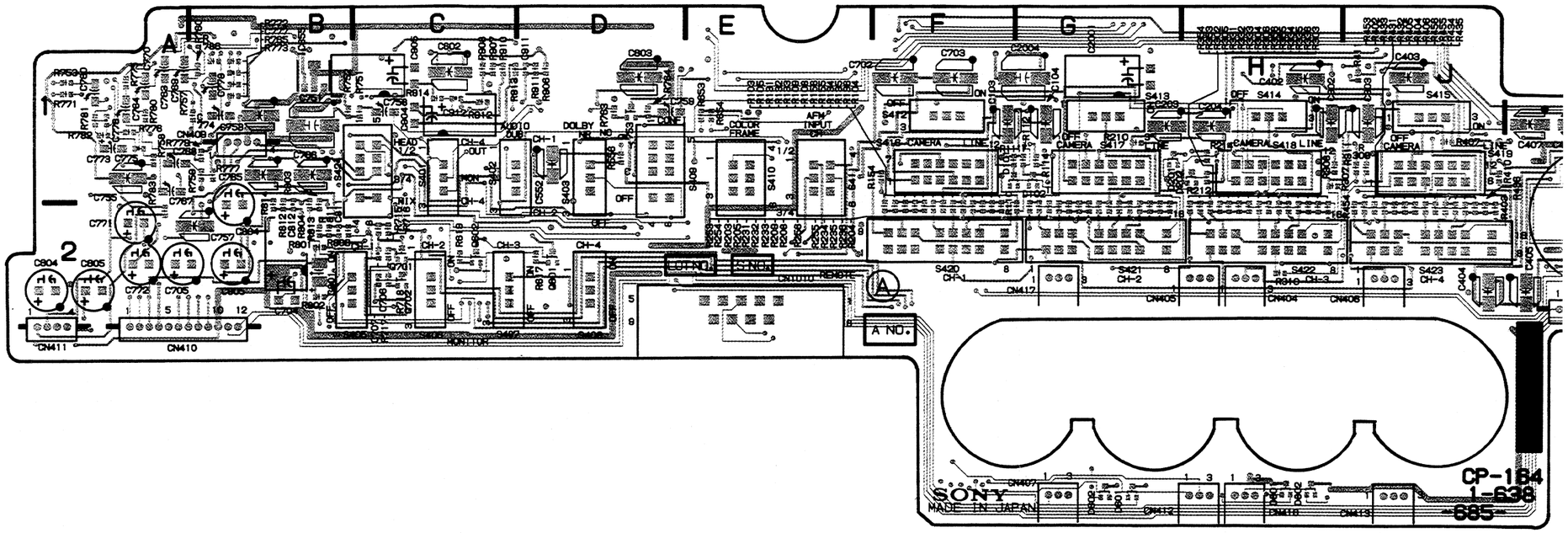


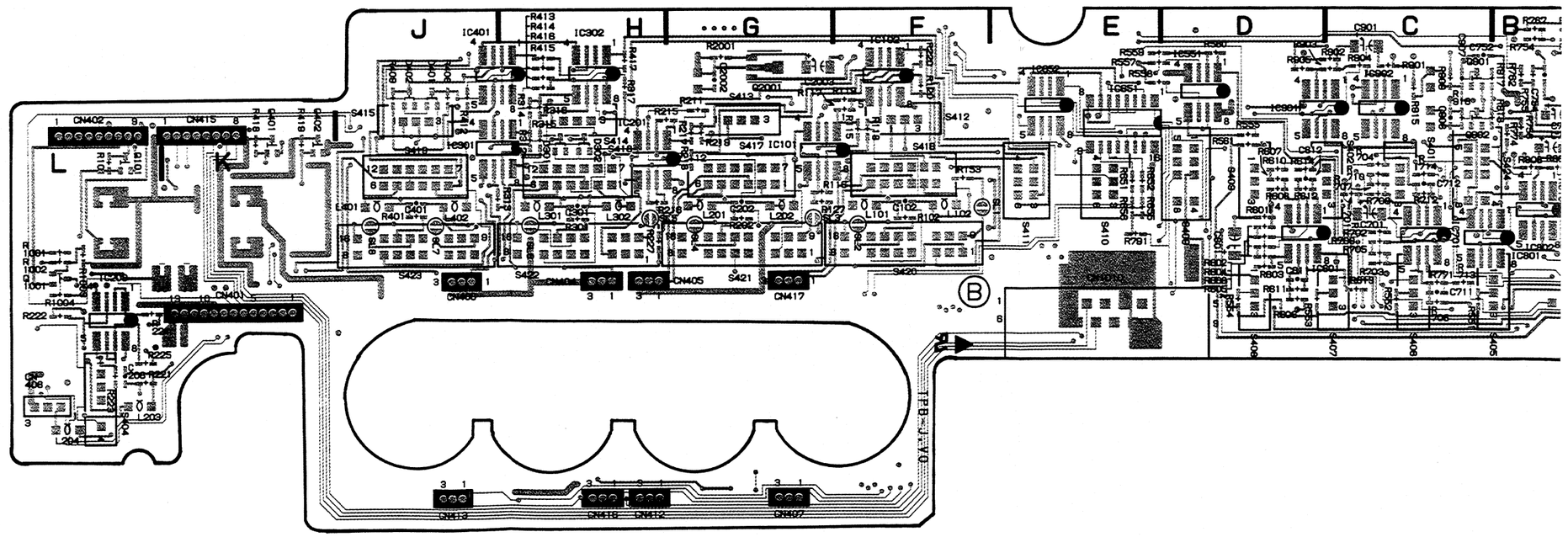
FE-11 — A SIDE —
1-638-696-12 (1)
BVW-50
BVW-50P



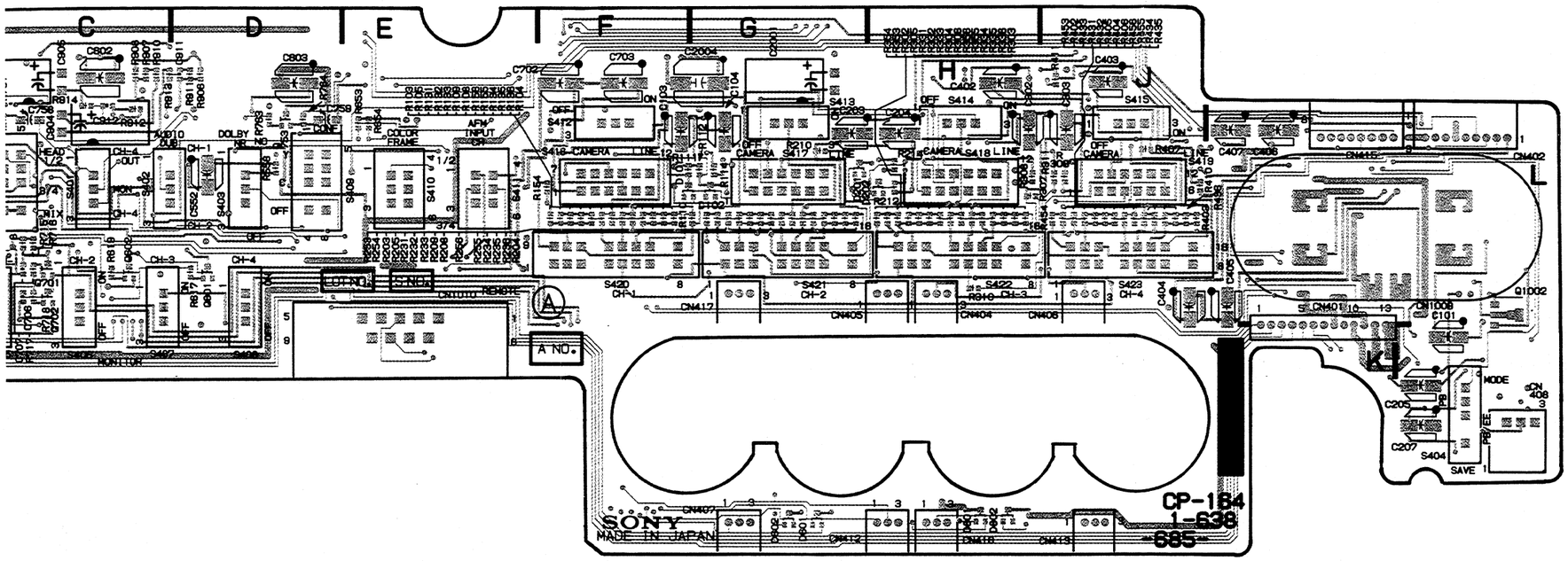
FE-11 — B SIDE —
1-638-696-12 (1)
BVW-50
BVW-50P

CP-164/A ; AUDIO INPUT/OUTPUT SYSTEM
PANEL SWITCHES

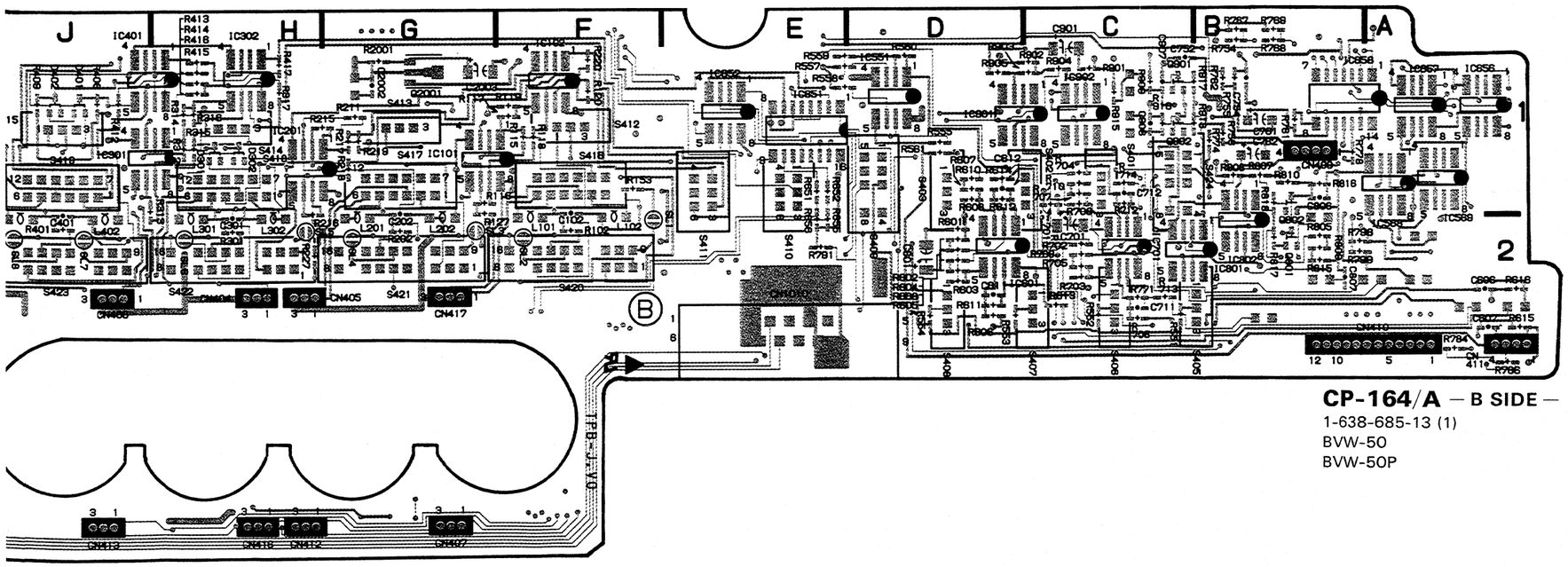




12-11



CP-164/A — A SIDE —
1-638-685-13 (1)
BVW-50
BVW-50P



CP-164/A — B SIDE —
1-638-685-13 (1)
BVW-50
BVW-50P

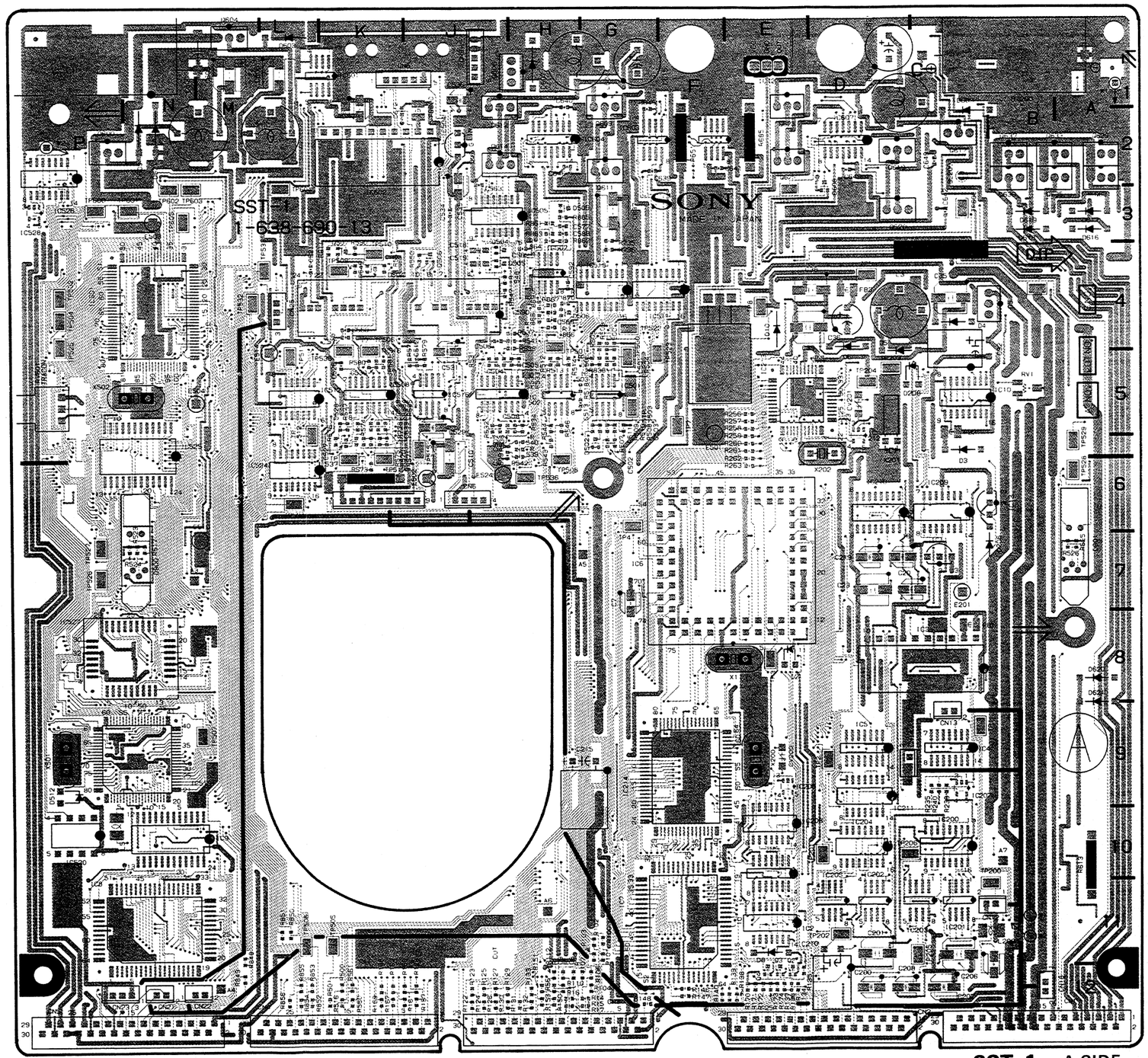
CP-164 (1-638-685-13)

CN401	K-2	S402	C-1
CN402	L-1	S403	D-1
CN404	H-2	S404	L-2
CN405	G-2	S405	C-2
CN406	J-2	S406	C-2
CN407	G-2	S407	C-2
CN408	L-2	S408	D-2
CN409	B-1	S409	E-1
CN410	A-2	S410	E-1
CN411	A-2	S411	E-1
CN412	G-2	S416	F-1
CN413	J-2	S417	G-1
CN415	K-1	S418	H-1
CN416	H-2	S419	J-1
CN417	G-2	S420	F-2
CN1009	L-2	S421	G-2
		S422	H-2
D101	F-1	S423	K-2
D102	G-1	S424	C-1
D201	G-1		
D202	G-1		
D301	H-1 *	* mark; B SIDE mount.	
D302	H-1 *		
D401	J-1 *		
D402	J-1 *		
D601	G-2		
D602	G-2		
D801	H-2		
D802	H-2		
IC101	G-1 *		
IC102	F-1 *		
IC201	H-1 *		
IC203	L-2 *		
IC301	J-1 *		
IC302	H-1 *		
IC401	J-1 *		
IC551	D-1 *		
IC568	A-2 *		
IC569	A-2 *		
IC601	D-2 *		
IC651	E-1 *		
IC652	E-1 *		
IC655	B-1		
IC656	A-1 *		
IC657	A-1 *		
IC658	B-1 *		
IC701	C-2 *		
IC801	B-2 *		
IC802	B-2 *		
IC901	D-1 *		
IC902	C-1 *		
Q401	K-1 *		
Q402	K-1 *		
Q601	D-2		
Q602	C-2		
Q701	C-2		
Q702	C-2		
Q753	D-1		
Q801	B-2 *		
Q802	B-2 *		
Q901	C-1 *		
Q902	C-1 *		
Q1001	L-2 *		
Q1002	L-2		
Q2001	G-1 *		
S401	C-1		

SST-1 ; SERVO & SYSTEM CONTROL SYSTEM TIME CODE

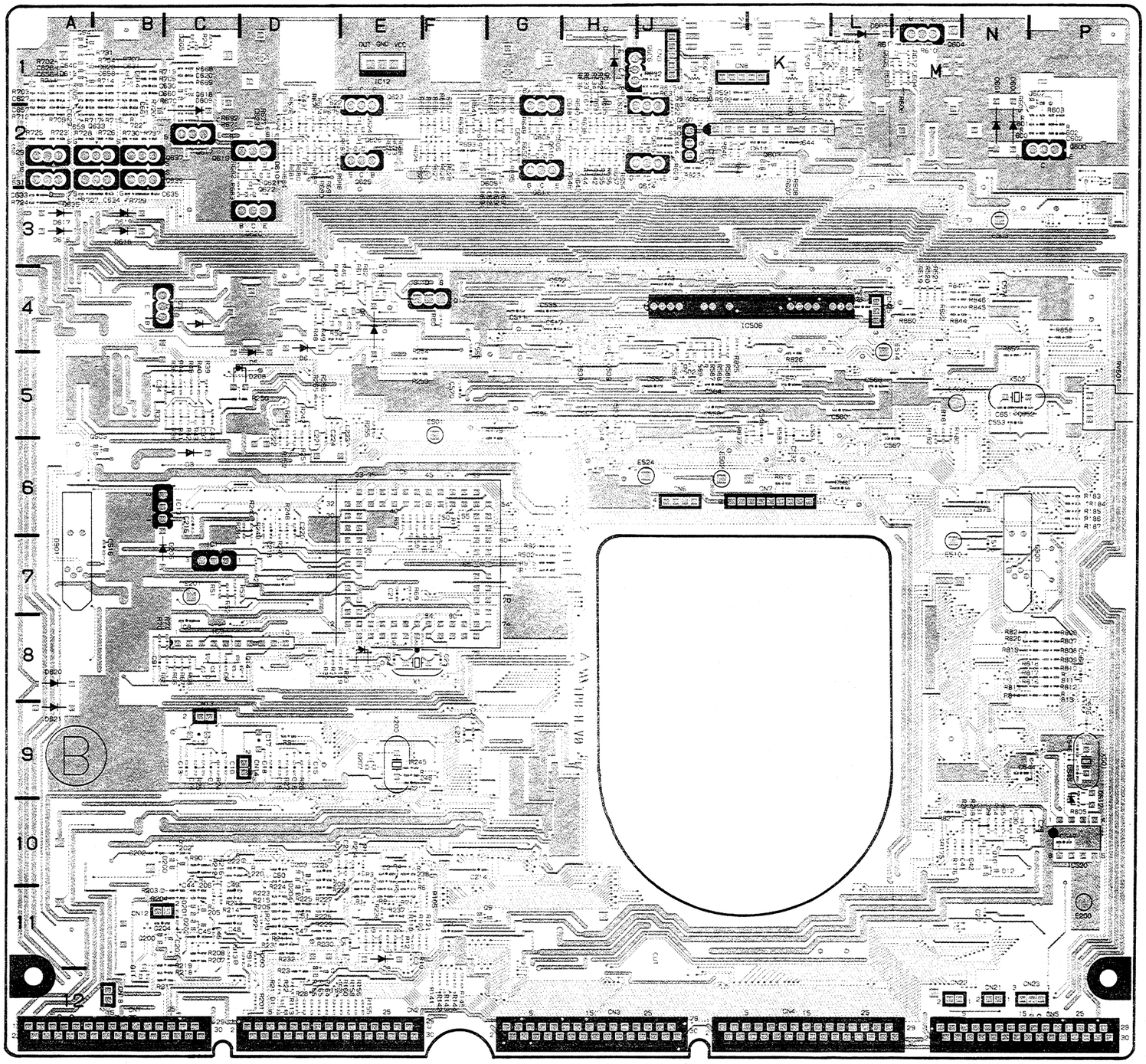
SST-1 (1-638-690-13)

BT200	B-1	E524	J-6	Q8	E-4 *	TP205	C-11
				Q9	G-11 *	TP206	D-10
CN1	A-12	FB1	C-8	Q10	N-10 *	TP500	G-5
CN2	C-12	FB2	C-5	Q11	B-12 *	TP501	H-4
CN3	G-12	FB3	D-4	Q12	F-4	TP502	P-4
CN4	M-12	FB600	J-2	Q13	E-4 *	TP503	G-5
CN5	P-12			Q14	D-8 *	TP504	P-4
CN6	J-6	IC1	E-10	Q200	B-11 *	TP505	K-11
CN7	K-6	IC2	E-11	Q502	J-5 *	TP506	L-11
CN8	K-1	IC3	C-8	Q503	B-5 *	TP507	M-9
CN9	J-1	IC4	C-9	Q504	J-3	TP508	H-6
		IC5	D-9	Q505	H-4	TP509	K-4
CV200	E-9	IC6	G-7	Q506	J-4	TP510	K-3
CV201	D-5	IC7	G-11	Q507	K-3	TP511	L-5
		IC8	P-10	Q600	P-2	TP512	L-5
D1	D-12 *	IC9	M-10	Q602	P-1 *	TP515	J-6
D2	E-8	IC10	B-5	Q603	K-2 *	TP516	K-4
D3	C-6	IC11	C-7	Q604	M-1	TP517	K-6
D4	C-4	IC12	E-1 *	Q605	L-1 *	TP522	G-4
D5	D-4	IC13	B-6	Q606	J-1	TP523	F-5
D6	D-5	IC200	C-10	Q607	J-2 *	TP525	P-5
D7	N-10 *	IC201	C-11	Q608	G-2 *	TP526	P-7
D8	E-11	IC202	D-11	Q609	G-2	TP527	P-7
D10	E-4	IC203	C-11	Q610	G-2 *	TP528	A-6
D11	C-8 *	IC204	D-10	Q611	G-2	TP529	A-6
D12	N-10 *	IC205	D-10	Q612	J-2	TP532	M-4
D200	C-10 *	IC206	E-9	Q613	H-3 *	TP533	L-4
D201	C-11 *	IC207	C-9	Q614	J-2	TP534	L-6
D202	C-11 *	IC208	E-10	Q615	J-2 *	TP535	K-5
D203	D-10 *	IC209	C-6	Q617	C-2	TP536	H-6
D204	D-11 *	IC210	D-6	Q618	C-1 *	TP537	K-6
D205	C-1 *	IC211	D-10	Q619	D-2	TP600	P-3
D206	B-7	IC212	D-5	Q620	D-3	TP601	N-3
D207	E-9 *	IC213	E-5	Q621	D-2 *	TP602	N-3
D208	D-5	IC214	G-9	Q622	D-3 *	TP603	N-3
D502	G-6	IC501	G-5	Q623	E-2	TP604	L-2
D504	K-4	IC502	H-5	Q624	E-2 *	TP605	N-3
D505	H-3	IC503	H-5	Q625	E-2	TP606	C-3
D506	H-4	IC504	J-2	Q626	E-2 *	TP607	E-3
D509	H-5 *	IC505	H-3	Q629	A-2		
D512	P-9	IC506	K-4	Q631	A-3	X1	E-8
D600	N-2	IC507	H-4	Q633	B-2	X200	E-9
D601	N-2	IC508	K-5	Q635	B-3	X201	D-6
D603	L-1	IC511	G-4	Q637	B-2	X202	D-6
D605	G-2 *	IC512	K-5	Q639	B-3	X501	P-9
D606	G-2 *	IC516	J-5	Q640	A-1 *	X502	P-5
D607	H-1	IC518	G-4	Q641	A-1 *		
D608	D-3	IC519	N-9			* mark ; B SIDE mount.	
D609	C-1	IC520	P-10	RV1	B-5		
D610	D-2 *	IC524	M-6	RV500	K-1 *		
D613	A-1 *	IC525	N-5	RV501	P-5		
D614	B-1 *	IC526	P-3	RV504	J-1 *		
D616	A-3	IC527	P-8				
D617	A-3	IC528	P-3	S501	K-1 *		
D618	B-3	IC601	K-1	S502	J-1 *		
D619	B-3	IC602	K-3				
D620	A-8	IC603	G-2	TP1	C-9		
D621	A-8	IC604	G-2	TP2	D-9		
D900	N-7 *	IC605	F-2	TP3	E-8		
D901	A-7 *	IC607	D-2	TP4	G-7		
		IC901	P-4	TP5	D-4		
E200	P-11			TP6	B-4		
E201	C-7	Q1	D-12 *	TP7	F-5		
E501	F-6	Q2	E-11	TP8	E-4		
E502	J-6	Q3	E-11	TP200	C-10		
E503	N-3	Q4	E-12	TP201	D-10		
E504	M-5	Q5	B-4	TP202	D-11		
E510	M-6	Q6	D-4 *	TP203	D-5		
E514	H-5	Q7	E-4 *	TP204	D-5		



SST-1 — A SIDE —
1-638-690-13 (1)
BVW-50
BVW-50P

SST-1 ; SERVO & SYSTEM CONTROL SYSTEM TIME CODE

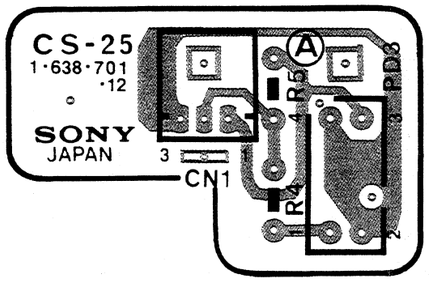


SST-1 — B SIDE —
1-638-690-13 (1)
BVW-50
BVW-50P

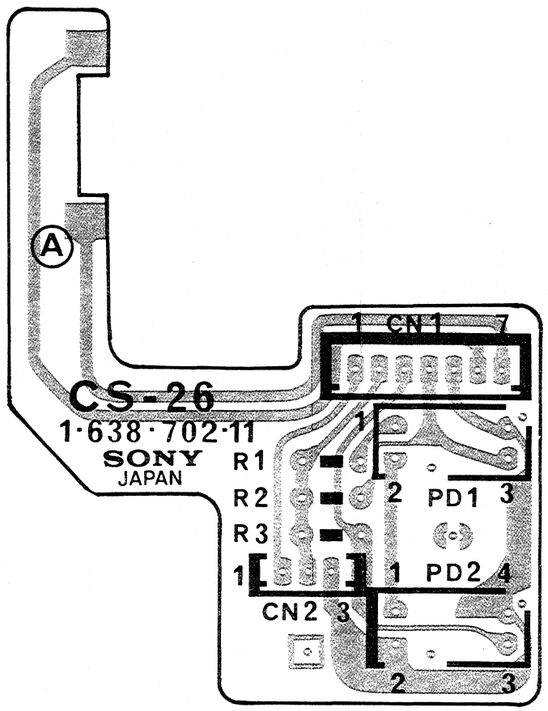
SST-1 (1-638-690-13)

BT200	B-1	E524	J-6	Q8	E-4 *	TP205	C-11
				Q9	G-11 *	TP206	D-10
CN1	A-12	FB1	C-8	Q10	N-10 *	TP500	G-5
CN2	C-12	FB2	C-5	Q11	B-12 *	TP501	H-4
CN3	G-12	FB3	D-4	Q12	F-4	TP502	P-4
CN4	M-12	FB600	J-2	Q13	E-4 *	TP503	G-5
CN5	P-12			Q14	D-8 *	TP504	P-4
CN6	J-6	IC1	E-10	Q200	B-11 *	TP505	K-11
CN7	K-6	IC2	E-11	Q502	J-5 *	TP506	L-11
CN8	K-1	IC3	C-8	Q503	B-5 *	TP507	M-9
CN9	J-1	IC4	C-9	Q504	J-3	TP508	H-6
		IC5	D-9	Q505	H-4	TP509	K-4
CV200	E-9	IC6	G-7	Q506	J-4	TP510	K-3
CV201	D-5	IC7	G-11	Q507	K-3	TP511	L-5
		IC8	P-10	Q600	P-2	TP512	L-5
D1	D-12 *	IC9	M-10	Q602	P-1 *	TP515	J-6
D2	E-8	IC10	B-5	Q603	K-2 *	TP516	K-4
D3	C-6	IC11	C-7	Q604	M-1	TP517	K-6
D4	C-4	IC12	E-1 *	Q605	L-1 *	TP522	G-4
D5	D-4	IC13	B-6	Q606	J-1	TP523	F-5
D6	D-5	IC200	C-10	Q607	J-2 *	TP525	P-5
D7	N-10 *	IC201	C-11	Q608	G-2 *	TP526	P-7
D8	E-11	IC202	D-11	Q609	G-2	TP527	P-7
D10	E-4	IC203	C-11	Q610	G-2 *	TP528	A-6
D11	C-8 *	IC204	D-10	Q611	G-2	TP529	A-6
D12	N-10 *	IC205	D-10	Q612	J-2	TP532	M-4
D200	C-10 *	IC206	E-9	Q613	H-3 *	TP533	L-4
D201	C-11 *	IC207	C-9	Q614	J-2	TP534	L-6
D202	C-11 *	IC208	E-10	Q615	J-2 *	TP535	K-5
D203	D-10 *	IC209	C-6	Q617	C-2	TP536	H-6
D204	D-11 *	IC210	D-6	Q618	C-1 *	TP537	K-6
D205	C-1 *	IC211	D-10	Q619	D-2	TP600	P-3
D206	B-7	IC212	D-5	Q620	D-3	TP601	N-3
D207	E-9 *	IC213	E-5	Q621	D-2 *	TP602	N-3
D208	D-5	IC214	G-9	Q622	D-3 *	TP603	N-3
D502	G-6	IC501	G-5	Q623	E-2	TP604	L-2
D504	K-4	IC502	H-5	Q624	E-2 *	TP605	N-3
D505	H-3	IC503	H-5	Q625	E-2	TP606	C-3
D506	H-4	IC504	J-2	Q626	E-2 *	TP607	E-3
D509	H-5 *	IC505	H-3	Q629	A-2		
D512	P-9	IC506	K-4	Q631	A-3	X1	E-8
D600	N-2	IC507	H-4	Q633	B-2	X200	E-9
D601	N-2	IC508	K-5	Q635	B-3	X201	D-6
D603	L-1	IC511	G-4	Q637	B-2	X202	D-6
D605	G-2 *	IC512	K-5	Q639	B-3	X501	P-9
D606	G-2 *	IC516	J-5	Q640	A-1 *	X502	P-5
D607	H-1	IC518	G-4	Q641	A-1 *		
D608	D-3	IC519	N-9			* mark ; B SIDE mount.	
D609	C-1	IC520	P-10	RV1	B-5		
D610	D-2 *	IC524	M-6	RV500	K-1 *		
D613	A-1 *	IC525	N-5	RV501	P-5		
D614	B-1 *	IC526	P-3	RV504	J-1 *		
D616	A-3	IC527	P-8				
D617	A-3	IC528	P-3	S501	K-1 *		
D618	B-3	IC601	K-1	S502	J-1 *		
D619	B-3	IC602	K-3				
D620	A-8	IC603	G-2	TP1	C-9		
D621	A-8	IC604	G-2	TP2	D-9		
D900	N-7 *	IC605	F-2	TP3	E-8		
D901	A-7 *	IC607	D-2	TP4	G-7		
		IC901	P-4	TP5	D-4		
E200	P-11			TP6	B-4		
E201	C-7	Q1	D-12 *	TP7	F-5		
E501	F-6	Q2	E-11	TP8	E-4		
E502	J-6	Q3	E-11	TP200	C-10		
E503	N-3	Q4	E-12	TP201	D-10		
E504	M-5	Q5	B-4	TP202	D-11		
E510	M-6	Q6	D-4 *	TP203	D-5		
E514	H-5	Q7	E-4 *	TP204	D-5		

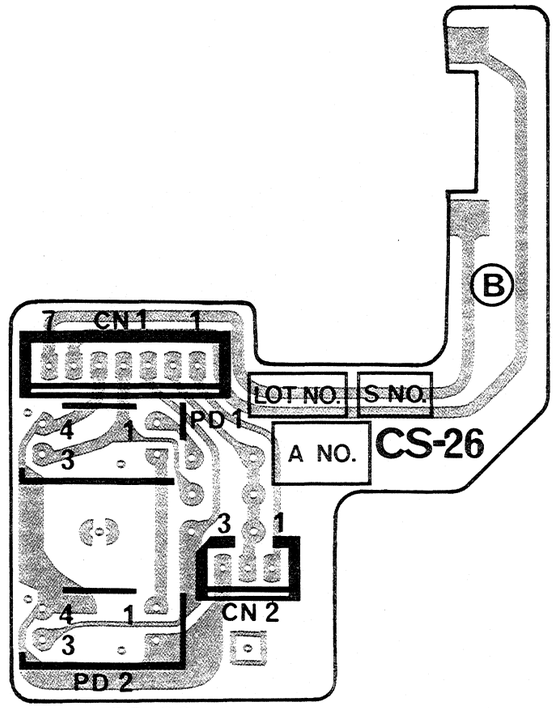
CS-25 ; CASSETTE IN DETECTOR
CS-26 ; CASSETTE UP/DOWN DETECTOR



CS-25 — A SIDE —
1-638-701-12 (1)
BVW-50
BVW-50P

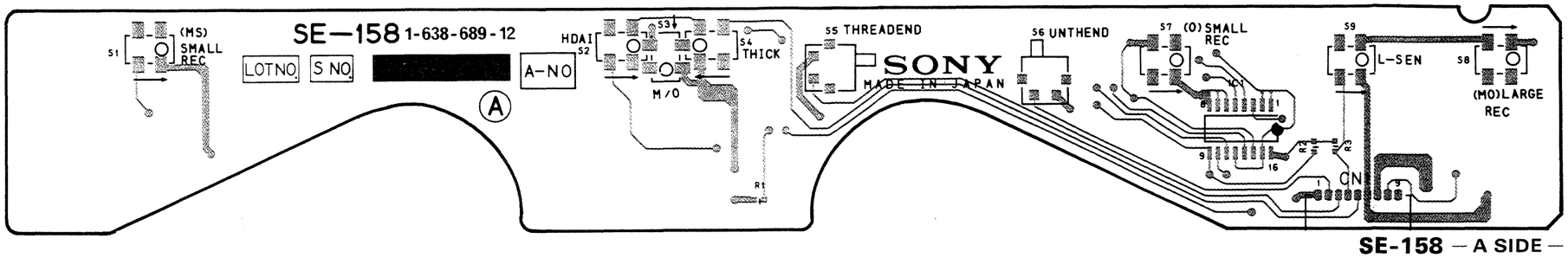


CS-26 — A SIDE —
1-638-702-11 (1)
BVW-50
BVW-50P

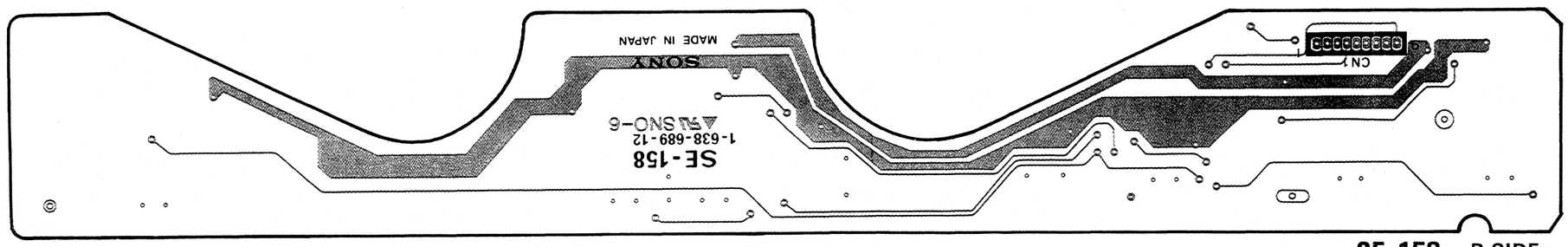


CS-26 — B SIDE —
1-638-702-11 (1)
BVW-50
BVW-50P

SE-158 ; THREAD/UNTHREAD END DETECTOR
CASSETTE/TAPE DETECTOR

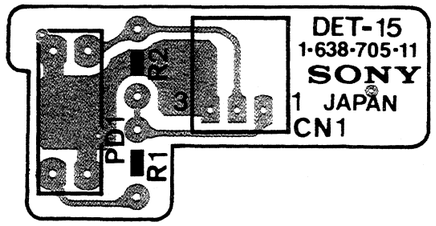


SE-158 — A SIDE —
1-638-689-12 (1)
BVW-50
BVW-50P

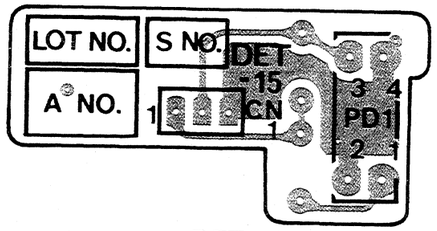


SE-158 — B SIDE —
1-638-689-12 (1)
BVW-50
BVW-50P

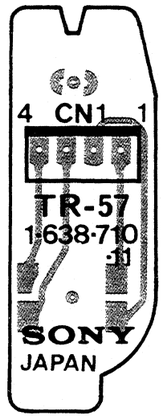
DET-15 ; THREADING FG DETECTOR
TR-57 ; S-TENSION DETECTOR



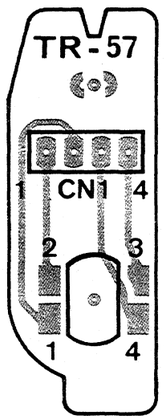
DET-15 — A SIDE —
1-638-705-11 (1)
BVW-50
BVW-50P



DET-15 — B SIDE —
1-638-705-11 (1)
BVW-50
BVW-50P



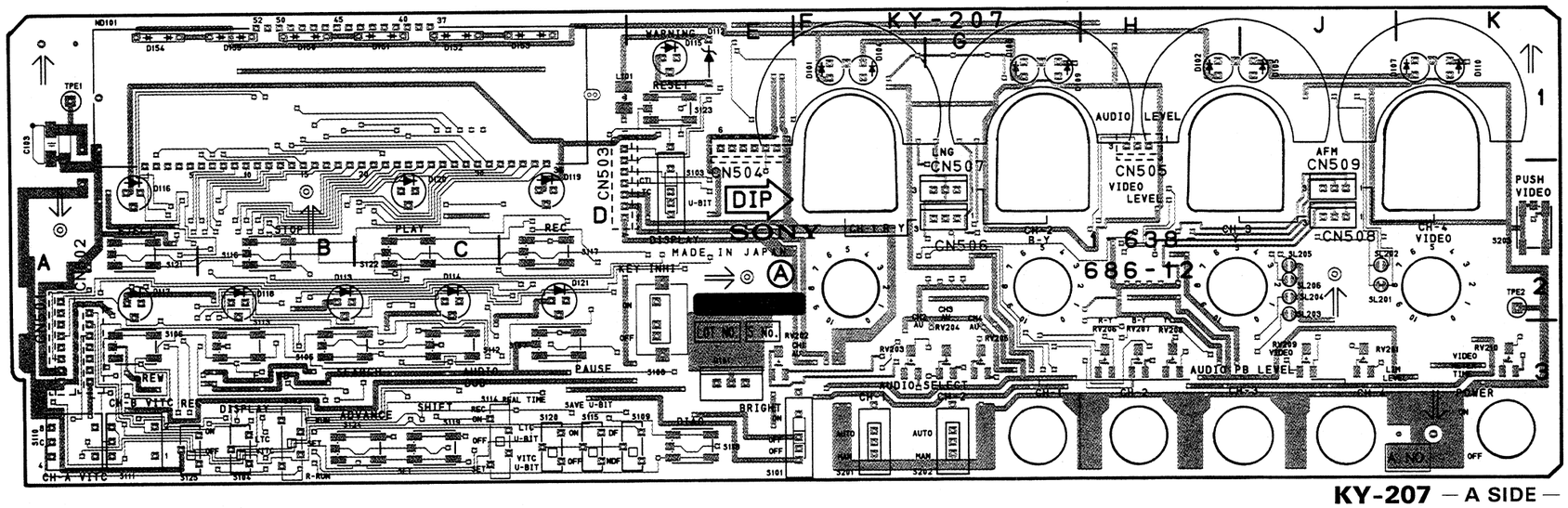
TR-57 — A SIDE —
1-638-710-11 (1)
BVW-50
BVW-50P



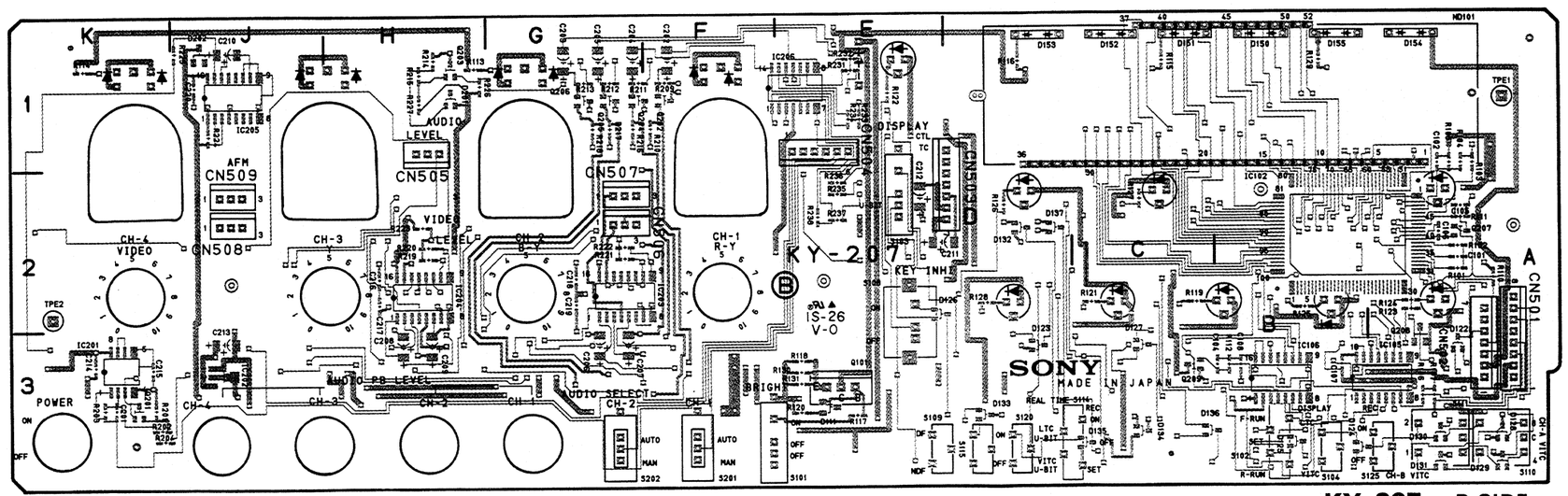
TR-57 — B SIDE —
1-638-710-11 (1)
BVW-50
BVW-50P

12-16

KY-207 ; FUNCTION KEYBOARD METER DRIVER



KY-207 — A SIDE —
1-638-686-12 (1)
BVW-50
BVW-50P



KY-207 — B SIDE —
1-638-686-12 (1)
BVW-50
BVW-50P

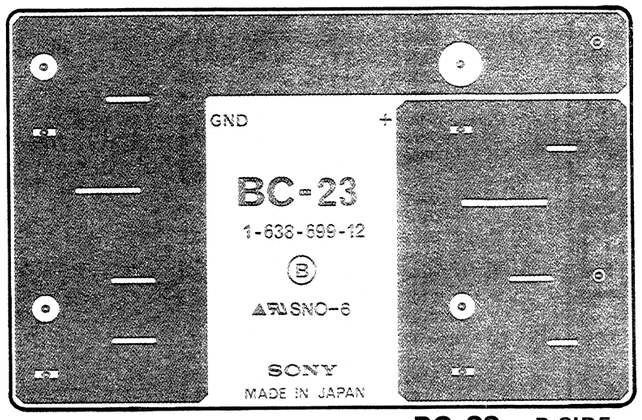
KY-207 (1-638-686-12)

CN501	A-2 *	Q101	E-3
CN502	A-3 *	Q201	K-3 *
CN503	D-2 *	Q202	F-1 *
CN504	E-1 *	Q203	H-1 *
CN505	H-1 *	Q204	G-1 *
CN506	G-2	Q205	G-1 *
CN507	G-2	Q206	G-1 *
CN508	J-2	Q207	A-2 *
CN509	J-2	Q208	A-3 *
		Q209	C-3 *
D101	F-1		
D102	H-1	RV201	J-3
D104	F-1	RV202	E-3
D105	J-1	RV203	F-3
D106	G-1	RV204	G-3
D107	K-1	RV205	G-3
D109	G-1	RV206	H-3
D110	K-1	RV207	H-3
D111	E-3 *	RV208	H-3
D112	E-1	RV209	J-3
D113	B-2	RV210	K-3
D114	C-2		
D115	E-1	S101	E-3
D116	A-2	S102	B-3
D117	A-2	S103	E-2
D118	B-2	S104	B-3
D119	D-2	S105	B-3
D120	C-2	S106	A-3
D121	D-2	S107	D-3
D122	A-3 *	S108	E-3
D123	D-3 *	S109	E-3
D124	B-3 *	S110	A-3
D125	B-3 *	S111	A-3
D126	D-2 *	S112	C-3
D127	C-3 *	S113	B-3
D128	A-3 *	S114	C-3
D129	A-3 *	S115	D-3
D130	A-3 *	S116	B-2
D131	A-3 *	S117	D-2
D132	D-2 *	S118	E-3
D133	D-3 *	S119	C-3
D134	C-3 *	S120	D-3
D135	C-3 *	S121	A-2
D136	C-3 *	S122	C-2
D137	D-2 *	S123	E-1
D150	B-1	S124	B-3
D151	C-1	S125	A-3
D152	C-1	S201	F-3
D153	D-1	S202	F-3
D154	A-1	S203	K-2
D155	B-1		
D201	H-1 *		
D202	J-1 *	* mark ; B SIDE mount.	
E1	A-1		
E2	K-2		
IC102	B-2 *		
IC105	A-3 *		
IC106	B-3 *		
IC201	K-3 *		
IC202	J-3 *		
IC203	F-2 *		
IC204	H-2 *		
IC205	J-1 *		
IC106	E-1 *		
ND101	A-1		

12-17

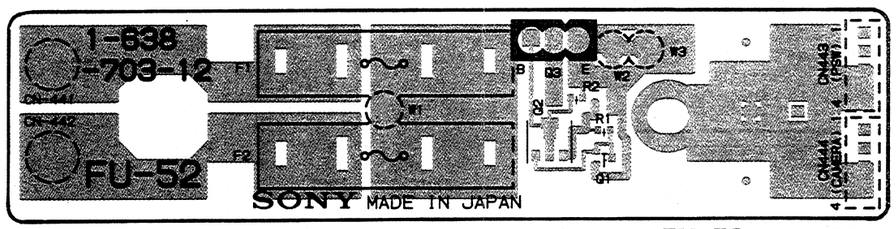
BC-23, DC-52, FU-52

BC-23 ; BATTERY TERMINAL
DC-52 ; EXTERNAL DC IN
FU-52 ; FUSE

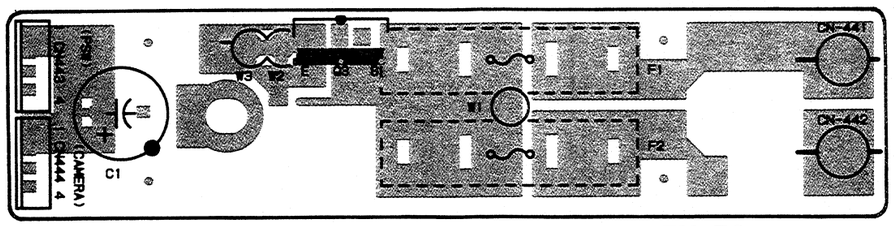


BC-23 — B SIDE —
1-638-699-12 (1)
BVW-50
BVW-50P

DC-52 — A SIDE —
1-638-704-12 (1)
BVW-50
BVW-50P



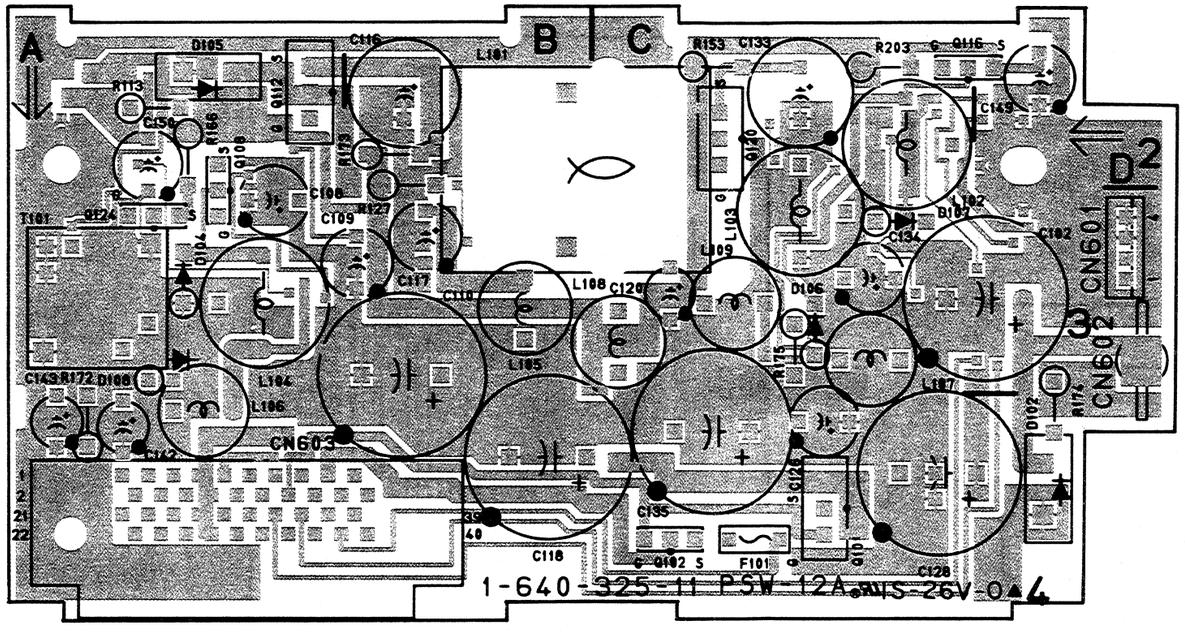
FU-52 — A SIDE —
1-638-703-12 (1)
BVW-50
BVW-50P



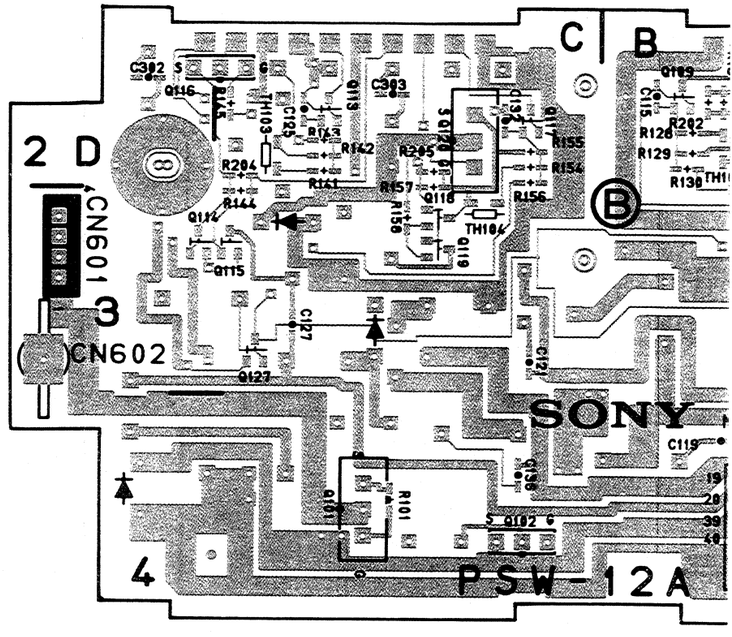
FU-52 — B SIDE —
1-638-703-12 (1)
BVW-50
BVW-50P

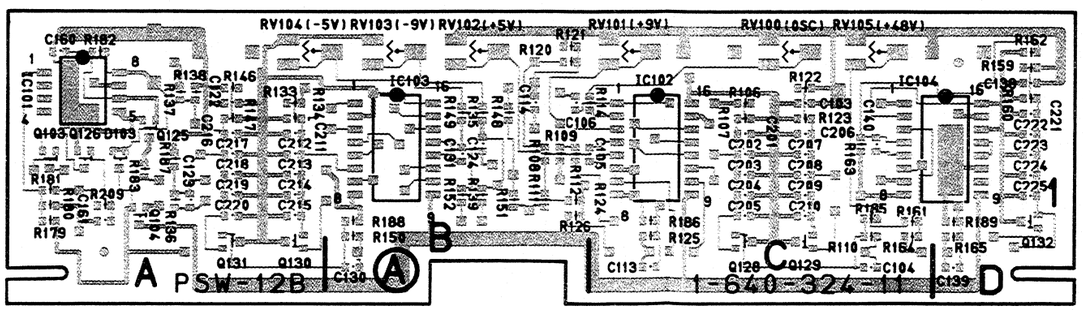
12-18

PSW-12A, 12B ; DC-DC CONVERTER

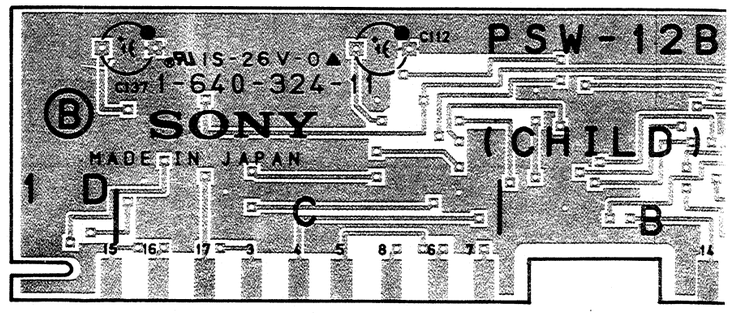


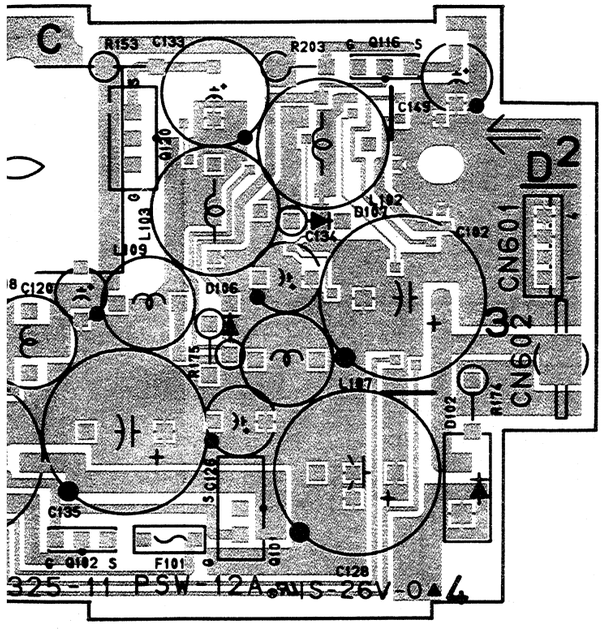
PSW-12A — A SIDE —
1-640-325-11 (1)
BVW-50
BVW-50P



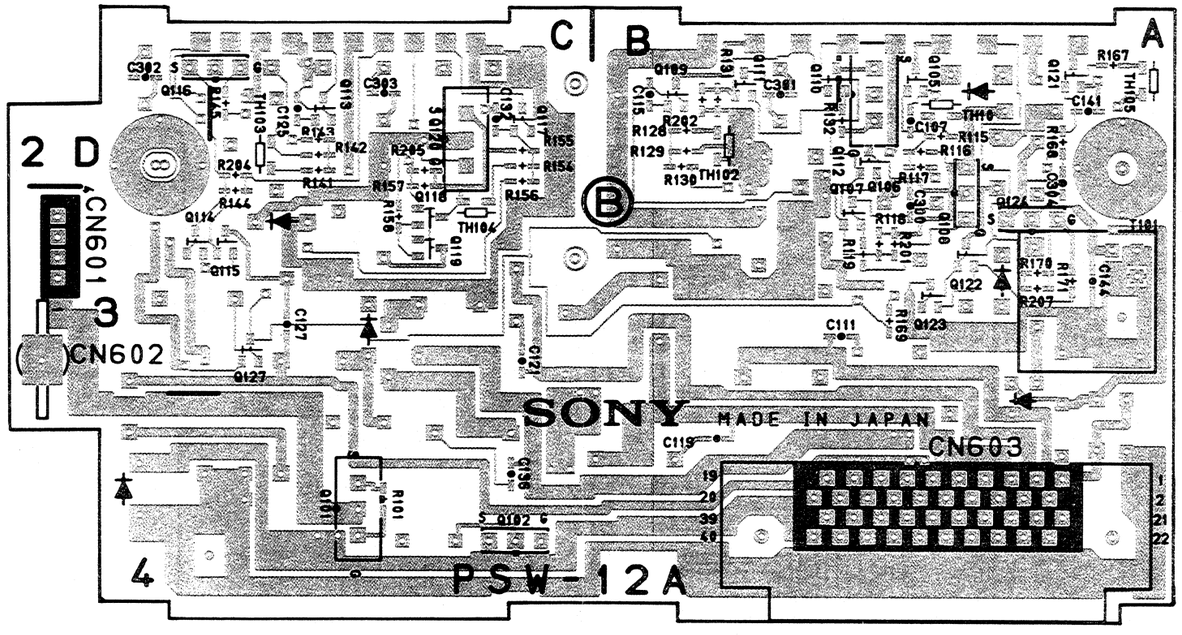


PSW-12B — A SIDE —
1-640-324-11 (1)
BVW-50
BVW-50P

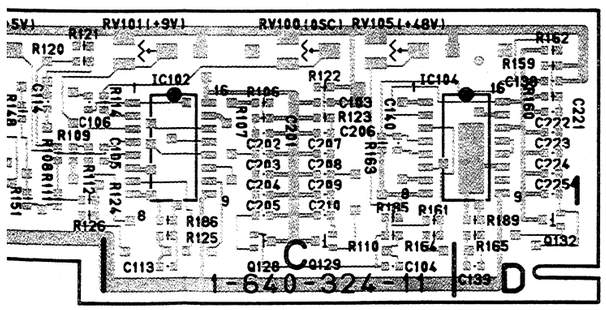




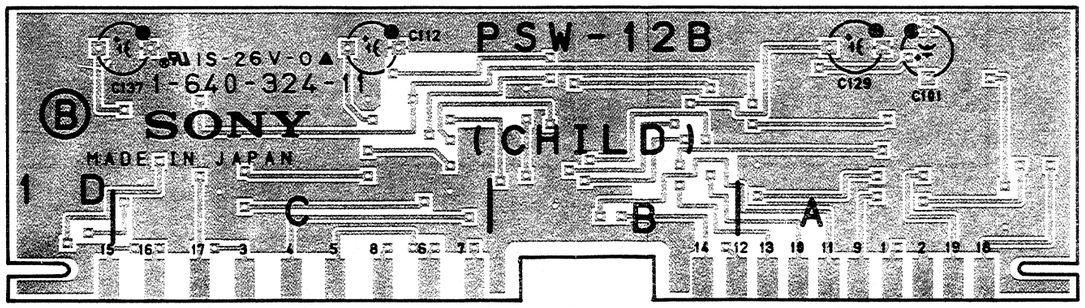
PSW-12A — A SIDE —
1-640-325-11 (1)
BVW-50
BVW-50P



PSW-12A — B SIDE —
1-640-325-11 (1)
BVW-50
BVW-50P



PSW-12B — A SIDE —
1-640-324-11 (1)
BVW-50
BVW-50P



PSW-12B — B SIDE —
1-640-324-11 (1)
BVW-50
BVW-50P

PSW-12A (1-640-325-11)

CN601	D-3
CN602	D-3
CN603	A-4
D102	D-4
D104	A-3
D105	A-2
D106	C-3
D107	C-3
D108	A-3
F101	C-4
Q101	C-4
Q102	C-4
Q105	A-2 *
Q106	A-2 *
Q107	A-3 *
Q108	A-2
Q109	B-2 *
Q110	B-2 *
Q111	B-2 *
Q112	A-2
Q113	C-2 *
Q114	D-3 *
Q115	C-3 *
Q116	C-2
Q117	C-2 *
Q118	C-3 *
Q119	C-3 *
Q120	C-2
Q121	A-2 *
Q122	A-3 *
Q123	A-3 *
Q124	A-2
Q127	C-3 *
TH101	A-2 *
TH102	B-2 *
TH103	C-2 *
TH104	C-3 *
TH105	A-2 *
T101	A-3

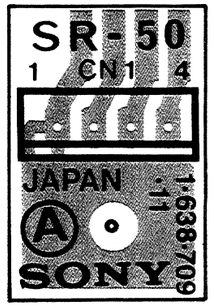
* mark; B SIDE mount.

PSW-12B (1-640-324-11)

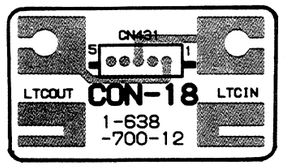
D103	A-1
IC101	A-1
IC102	C-1
IC103	B-1
IC104	D-1
Q103	A-1
Q104	A-1
Q125	A-1
Q126	A-1
Q128	C-1
Q129	C-1
Q130	A-1
Q131	A-1
Q132	D-1
RV100	C-1
RV101	C-1
RV102	B-1
RV103	B-1
RV104	A-1
RV105	C-1

* mark; B SIDE mount.

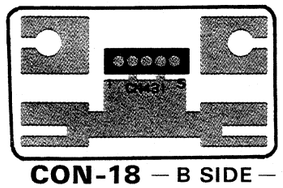
CON-18 ; TC IN/OUT CONNECTOR
SR-50 ; SLIP-RING
MB-335 ; MOTHER BOARD



SR-50 — A SIDE —
1-638-709-11 (1)
BVW-50
BVW-50P



CON-18 — A SIDE —
1-638-700-12 (1)
BVW-50
BVW-50P

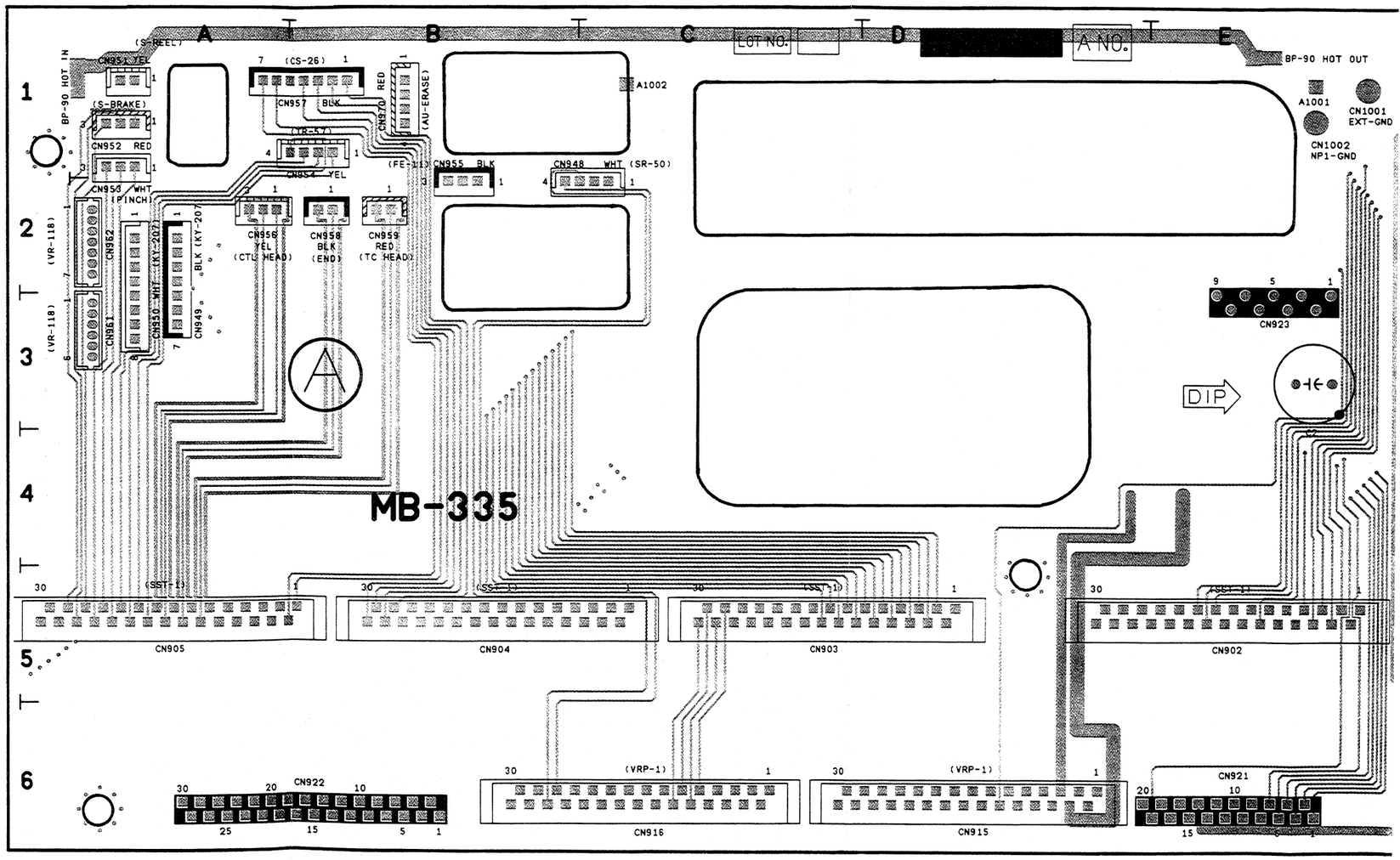


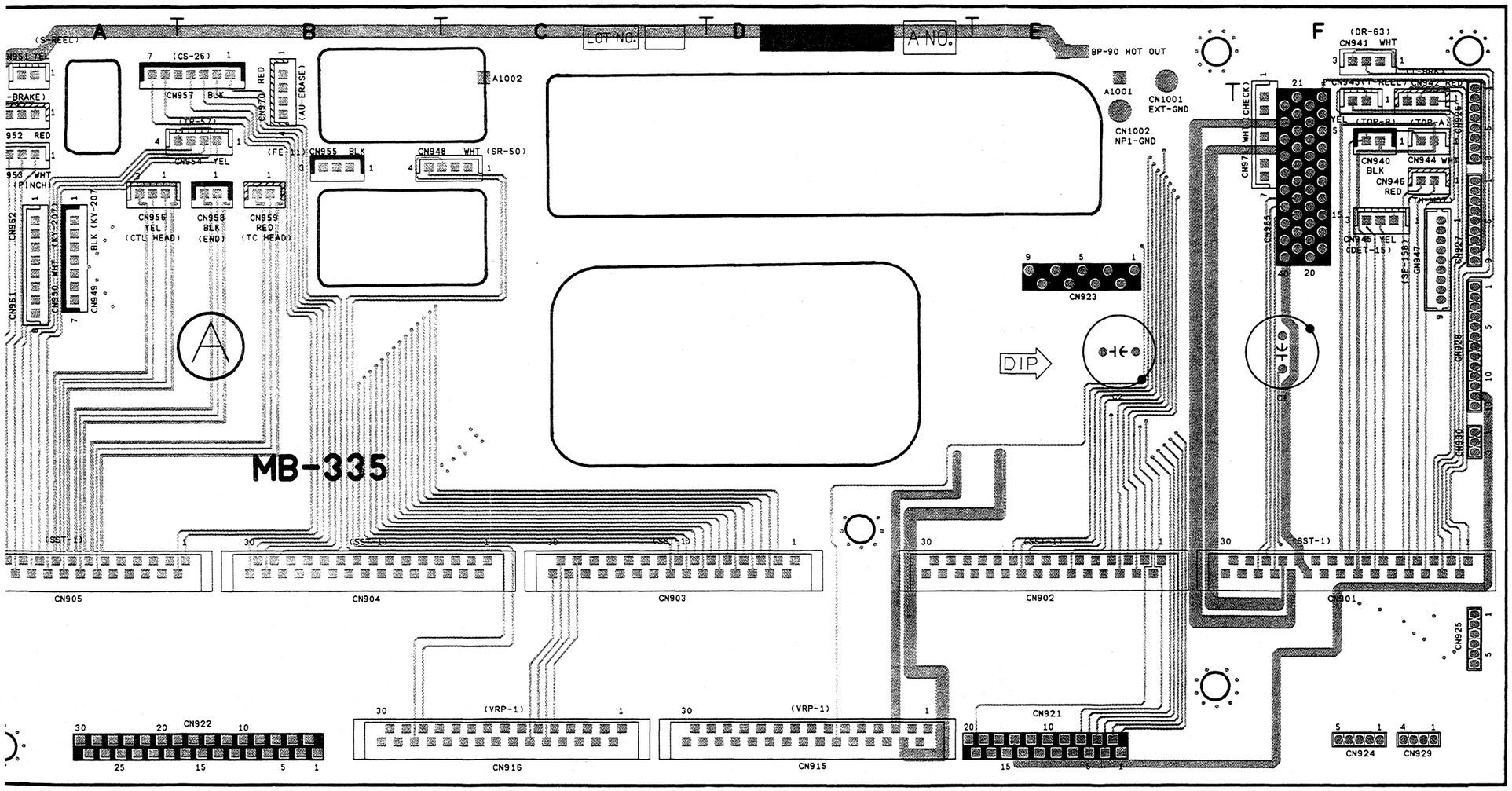
CON-18 — B SIDE —
1-638-700-12 (1)
BVW-50
BVW-50P

MB-335 (1-638-687-12)

CN901	F-5
CN902	E-5
CN903	C-5
CN904	B-5
CN905	A-5
CN915	D-6
CN916	C-6
CN921	E-6 *
CN922	B-6 *
CN923	E-2 *
CN924	F-6 *
CN925	F-5 *
CN926	F-1 *
CN927	F-2 *
CN928	F-3 *
CN929	F-6 *
CN930	F-4 *
CN940	F-1
CN941	F-1
CN942	F-1
CN943	F-1
CN944	F-1
CN945	F-2
CN946	F-2
CN947	F-2
CN948	B-1
CN949	A-3
CN950	A-3
CN951	A-1
CN952	A-1
CN953	A-2
CN954	B-1
CN955	B-1
CN956	A-2
CN957	B-1
CN958	B-2
CN959	B-2
CN961	A-3
CN962	A-2
CN965	F-3 *
CN970	B-1
CN971	F-1
CN1001	E-1
CN1002	E-1

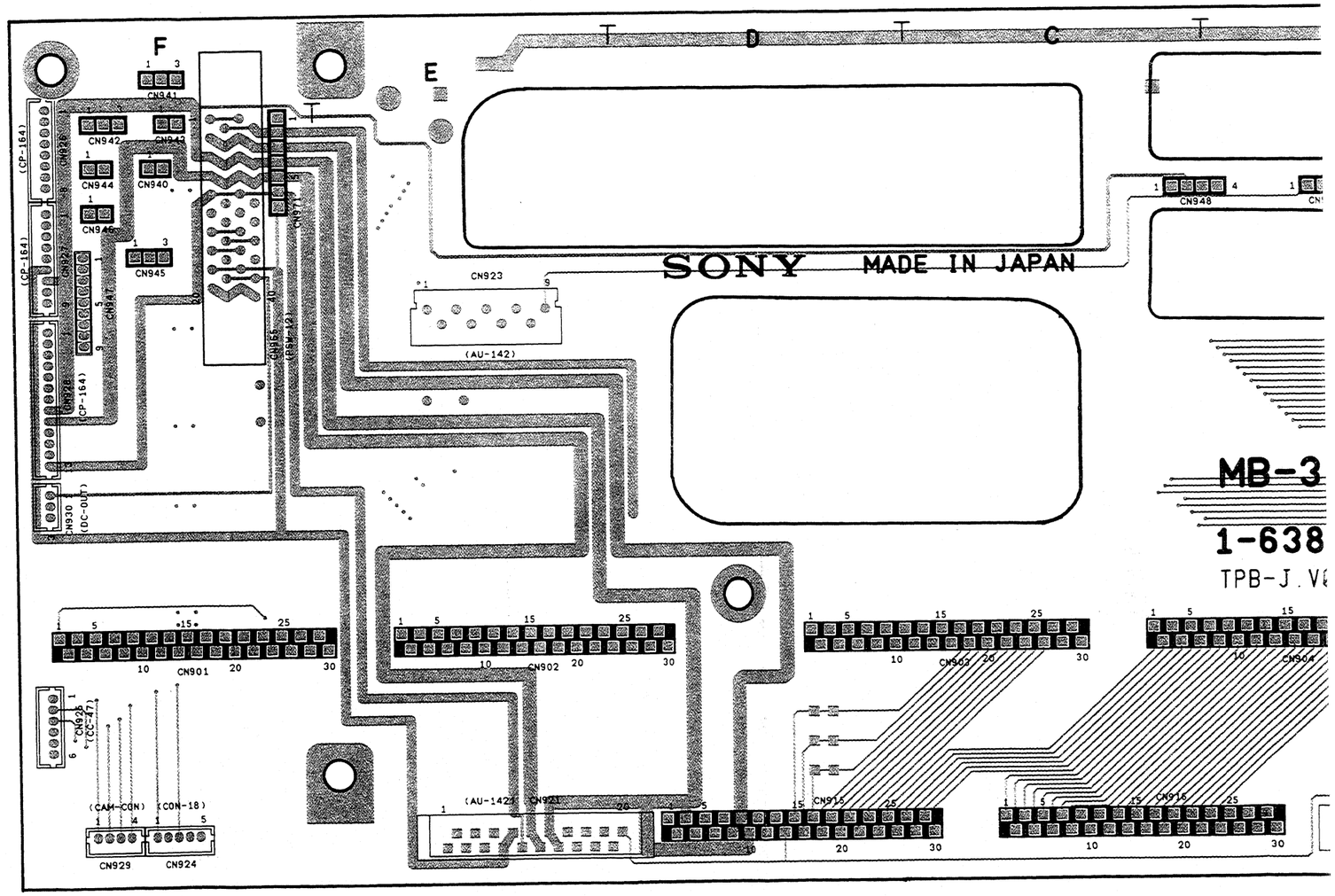
* mark ; B SIDE mount.

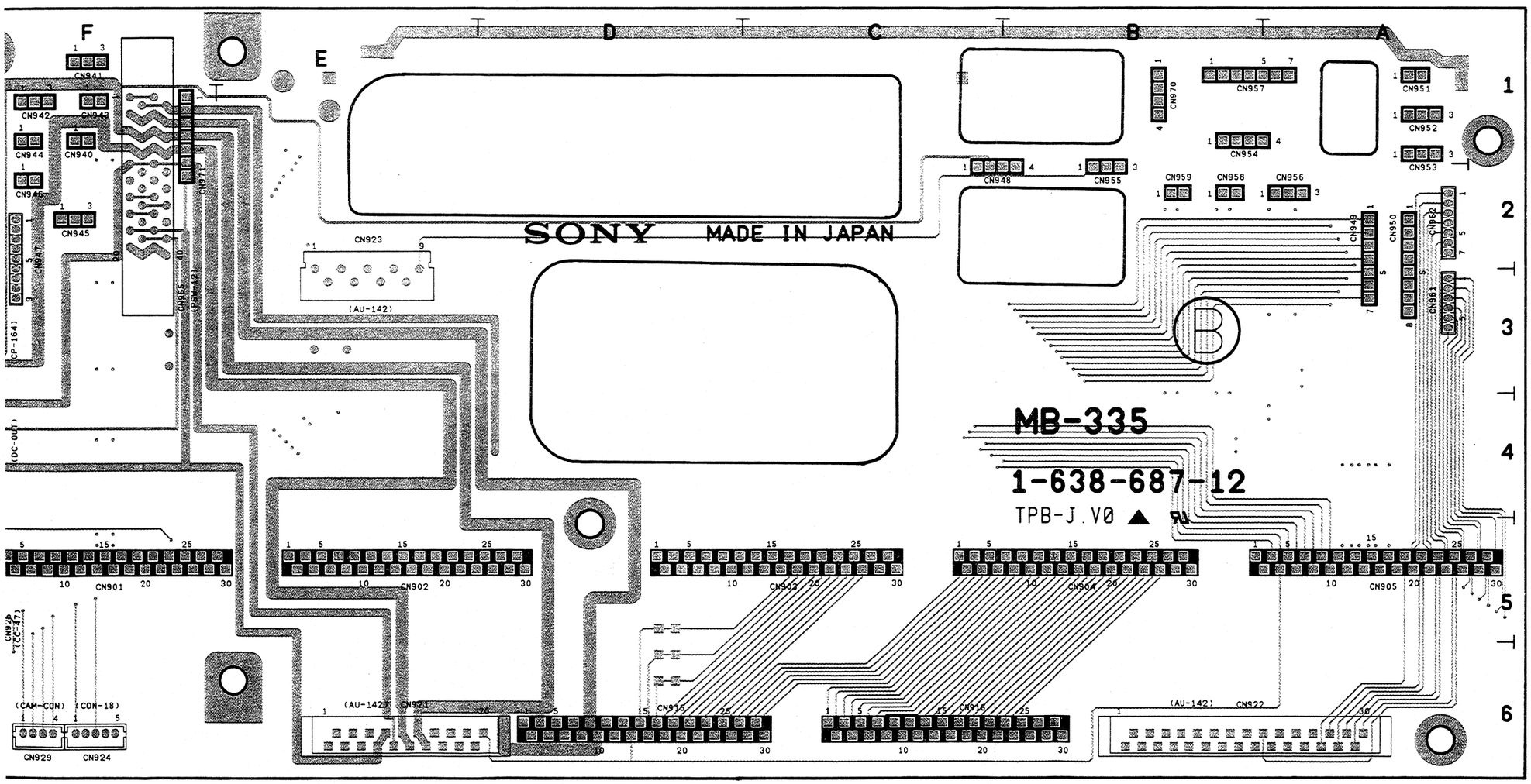




MB-335 — A SIDE —
1-638-687-12 (1)
BVW-50
BVW-50P

MB-335; MOTHER BOARD





MB-335 — B SIDE —
1-638-687-12 (1)
BVW-50
BVW-50P

MB-335 (1-638-687-12)

CN901	F-5
CN902	E-5
CN903	C-5
CN904	B-5
CN905	A-5
CN915	D-6
CN916	C-6
CN921	E-6 *
CN922	B-6 *
CN923	E-2 *
CN924	F-6 *
CN925	F-5 *
CN926	F-1 *
CN927	F-2 *
CN928	F-3 *
CN929	F-6 *
CN930	F-4 *
CN940	F-1
CN941	F-1
CN942	F-1
CN943	F-1
CN944	F-1
CN945	F-2
CN946	F-2
CN947	F-2
CN948	B-1
CN949	A-3
CN950	A-3
CN951	A-1
CN952	A-1
CN953	A-2
CN954	B-1
CN955	B-1
CN956	A-2
CN957	B-1
CN958	B-2
CN959	B-2
CN961	A-3
CN962	A-2
CN965	F-3 *
CN970	B-1
CN971	F-1
CN1001	E-1
CN1002	E-1

* mark; B SIDE mount.

SECTION 13
SPARE PART AND FIXTURE

13-1. NOTES ON REPAIR PARTS

(1) Safety Related Components Warning

Components marked with ⚠ on the schematic diagrams, exploded views and electrical spare parts list are critical to safe operation. Replace these components with Sony parts whose part numbers appear in this manual or in service bulletin and service manual supplements published by Sony.

(2) Standardization of Parts

Repair parts supplied from Sony Parts Center may not be always identical with the parts which actually in use due to "accommodating the improved parts and/or engineering changes" or "standardization of genuine parts".
This manual's exploded views and electrical spare parts list are indicating the part numbers of "the standardized genuine parts at present".

(3) Change of Parts

Regarding engineering parts changes, refer to "Section 14. CHANGED PART".

(4) Stock of Parts

Parts marked with "o" SP (Supply Code) column of the spare parts list are not normally required for routine service work. Orders for parts marked with "o" will be processed, but allow for additional delivery time.

(5) Units for Capacitors, Inductors and Resistors

The following units are assumed in schematic diagrams, electrical parts list and exploded views unless otherwise specified.

Capacitors : μF
Inductors : μH
Resistors : Ω

(6) Tension Spring

(××T) after a tension spring is shown on the parts list in order to indicate the number of spring turns required for the use.

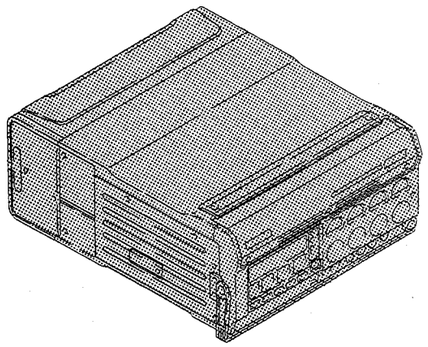
(Example) TENSION, SPRING (20T):
This spring must be cut at its 20th turn for actual use.

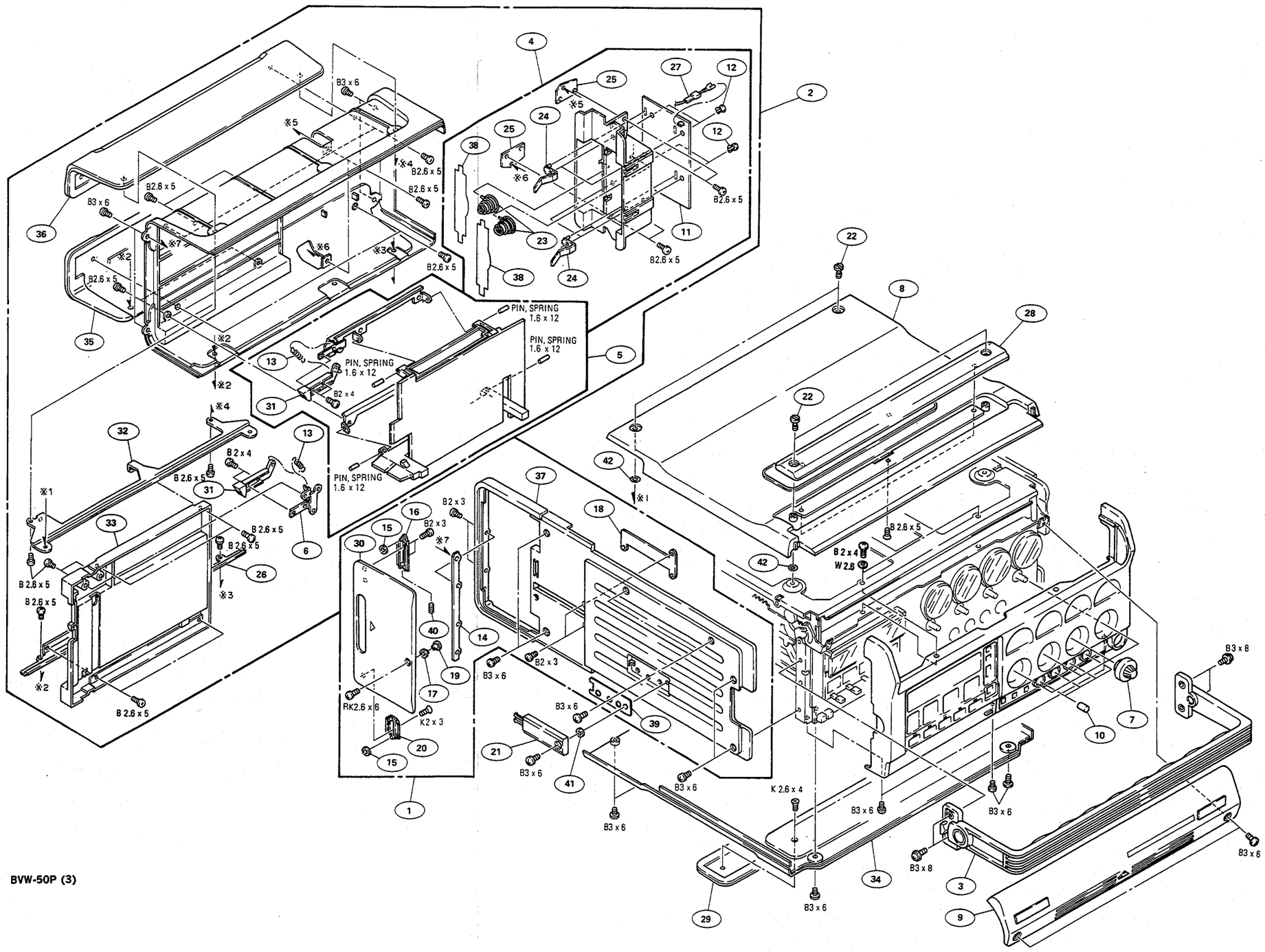
13-2. EXPLODED VIEW

Index of Main Mechanical Parts/Components

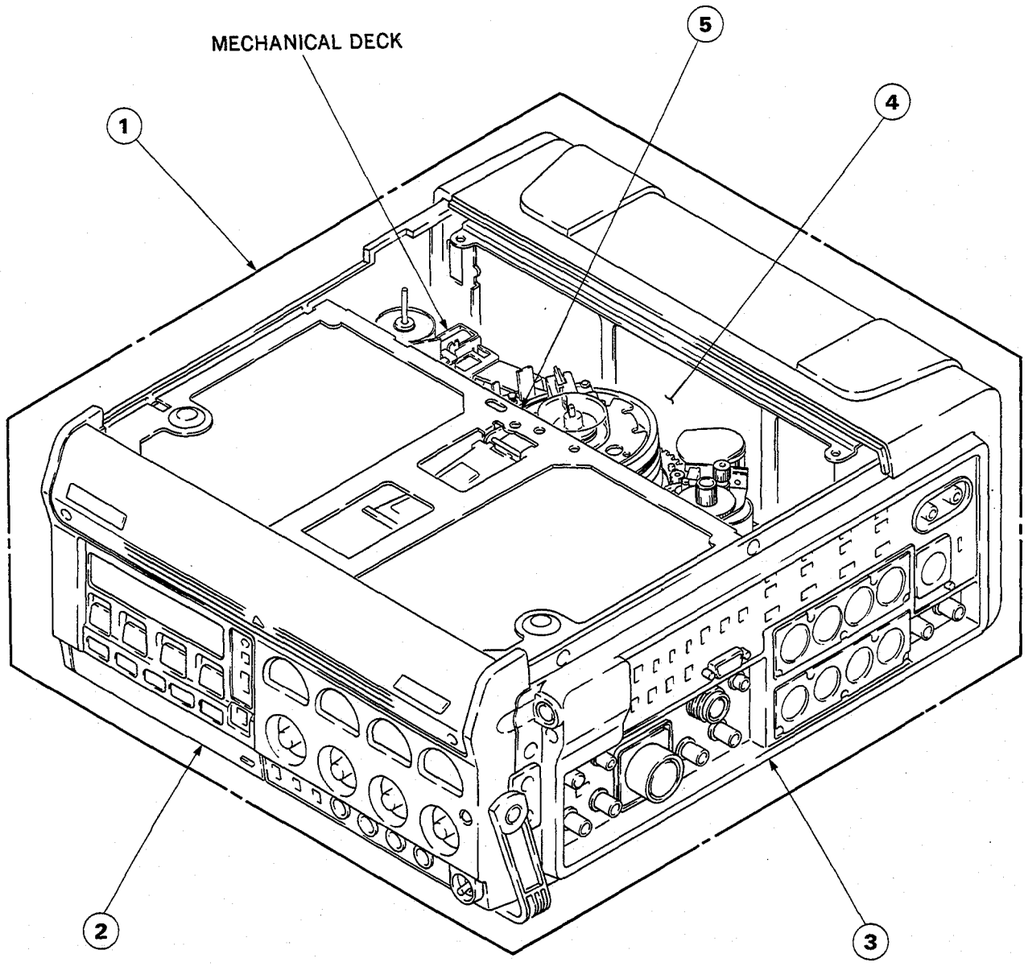
Mark	Item	Title	Page
①	Upper Panel Bottom Panel Cabinet (left) Cabinet (rear) Handle Front Cover	ORNAMENTAL PANEL BLOCK	13-4
②	Front Panel	FRONT PANEL BLOCK	13-6
③	Connector Panel	CONNECTOR PANEL BLOCK	13-8
④	Printed Circuit Boards Front Chassis Rear Chassis Power Block	CHASSIS AND PRINTED CIRCUIT BOARD BLOCK	13-10
⑤	Cassette Compartment	CASSETTE COMPARTMENT BLOCK	13-12
⑥ ⑦ ⑧	Drum Belt Reel Belt Threading Belt	BELT BLOCK	13-14
⑨ ⑩ ⑪ ⑫	S Reel Table T Reel Table Reel Arm Slide Link	REEL TABLE BLOCK	13-16
⑬ ⑭ ⑮	Tension Regulator S Drawer Arm Full Erase Head	TENSION REGULATOR AND FULL ERASE HEAD BLOCK	13-18
⑯ ⑰ ⑱	Head Drum Drum Motor Entrance Guide Exit Guide	HEAD DRUM AND TAPE GUIDE BLOCK	13-20
⑲ ⑳ ㉑	ATAC Head CTL Head Capstan Motor	STATIONARY HEAD AND CAPSTAN BLOCK	13-22
㉒ ㉓ ㉔	Pinch Press Lever Pinch Solenoid S Reel Motor	PINCH PRESS AND S REEL MOTOR BLOCK	13-24
㉕	Threading Ring Ring Stopper	THREADING RING BLOCK	13-26
㉖ ㉗	Gear Block T Reel Motor	GEAR AND T REEL MOTOR BLOCK	13-28

Ornamental Panel Block

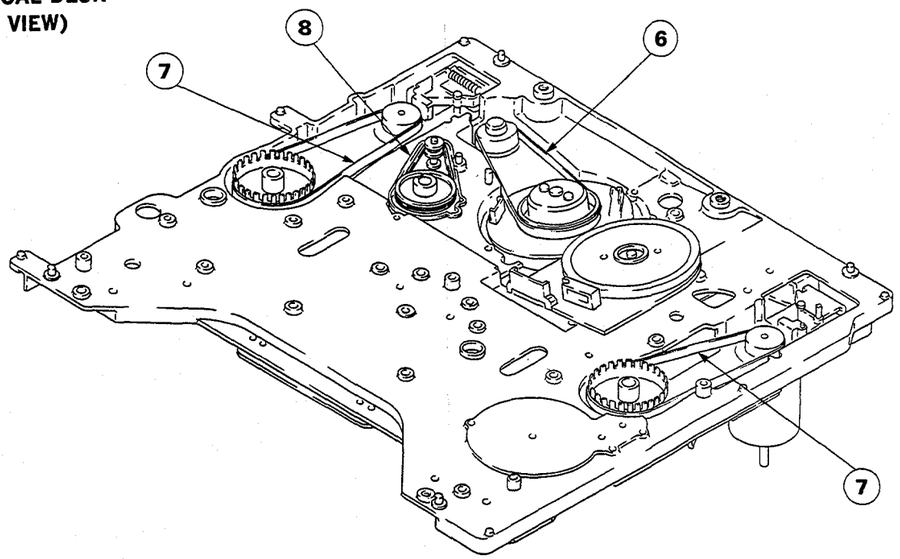




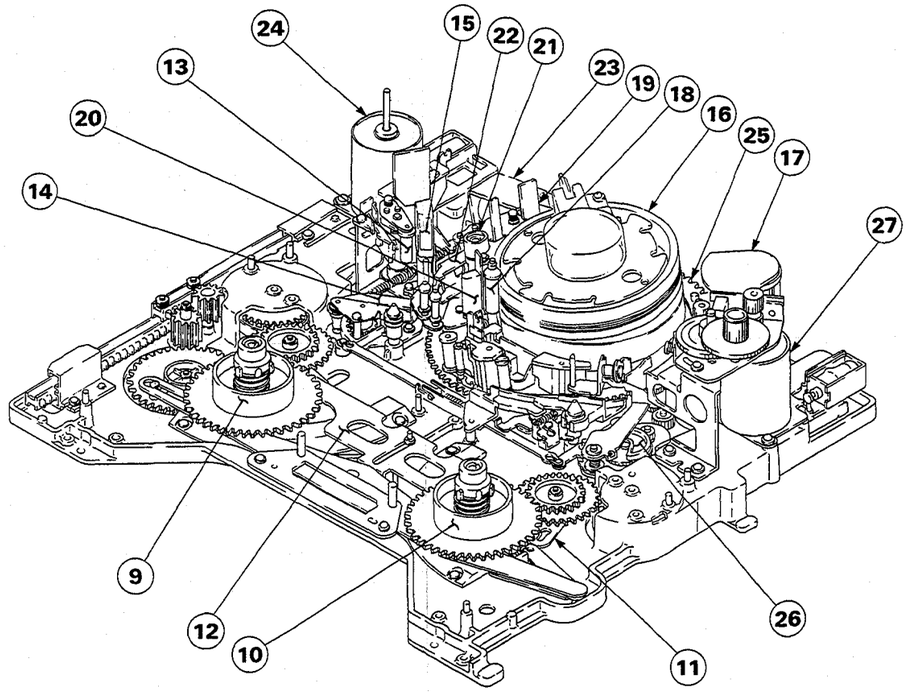
BVW-50P (3)



MECHANICAL DECK
(BOTTOM VIEW)



MECHANICAL DECK
(TOP VIEW)

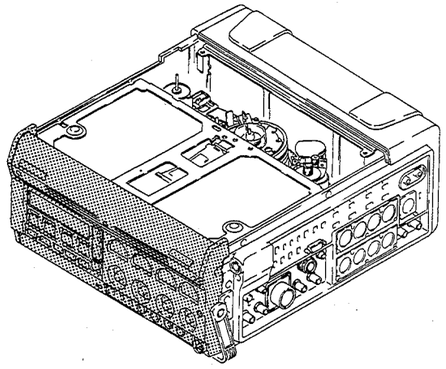


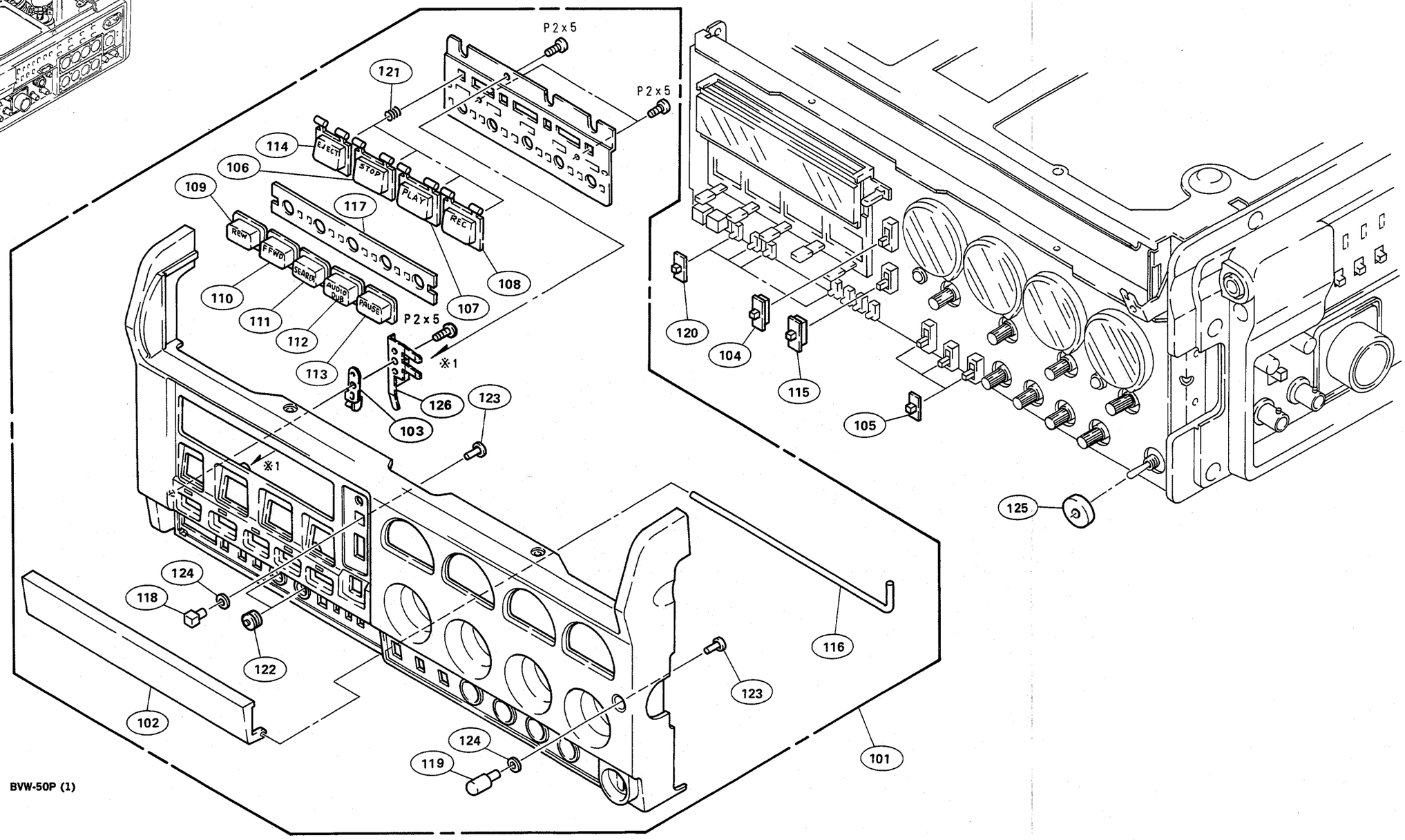
No.	Part No.	SP	Description
1	A-6703-697-A	o	CABINET (LEFT) ASSY
2	A-6703-698-B	o	CABINET (REAR) ASSY
3	A-6703-699-A	o	HANDLE ASSY
4	A-6738-459-A	o	CASE ASSY, CONTACT
5	A-6738-460-A	s	HOLDER ASSY, NP
6	X-3165-736-2	o	PLATE ASSY, ARM, LOCK
7	X-3165-762-1	s	KNOB ASSY, REC-VR
8	X-3165-774-1	o	PANEL SUB ASSY, UPPER
9	X-3165-776-3	o	COVER ASSY, FRONT (for J,UC)
	X-3165-871-2	o	COVER ASSY, FRONT (for EK)
10	X-3664-208-0	s	KNOB ASSY, FADE
11	1-638-699-11	o	PRINTED CIRCUIT BOARD, BC-23
12	2-279-715-01	s	RIVET, NYLON
13	3-508-108-xx	s	SPRING, TENSION (17T)
14	3-169-331-01	o	BRACKET, CABINET (REAR)
15	3-169-346-01	s	ROLLER (A)
16	3-169-347-03	o	HOLDER (B), ROLLER
17	3-169-348-01	s	ROLLER (B)
18	3-169-349-01	o	COVER, ROLLER
19	3-169-350-02	s	SHAFT, BT ROLLER
20	3-169-351-03	o	HOLDER (A), ROLLER
21	3-169-406-02	o	COVER, L SUB
22	3-169-407-02	s	SCREW, LID
23	3-169-424-01	s	SPRING, COMPRESSION
24	3-169-425-02	s	CONTACT
25	3-169-436-02	o	BRACKET, CONTACT
26	3-169-437-04	o	BRACKET (B), BT
27	3-169-455-01	s	SLEEVE, INSULATING
28	3-169-517-01	o	CUSHION (UPPER), ER
29	3-169-524-01	o	CUSHION (LOWER), ER
30	3-169-530-03	o	LID, BT
31	3-169-542-03	s	ARM, LOCK
32	3-169-543-01	o	BRACKET (A), BT
33	3-169-554-02	o	CASE, BATTERY
34	X-3166-346-1	o	PLATE SUB ASSY, BOTTOM
35	3-169-569-01	o	CUSHION (B)
36	3-169-570-01	o	CUSHION (A)
37	3-169-571-02	o	PLATE, SIDE, LEFT
38	3-170-480-02	o	COVER, SPRING
39	3-171-126-01	o	PLATE (L), ORNAMENTAL
40	3-644-718-00	s	SPRING, COMPRESSION
41	3-669-596-00	s	WASHER (2.3), STOPPER
42	3-728-664-01	s	RING, O

FRONT PANEL BLOCK

No.	Part No.	SP	Description
101	A-6704-513-A	o	PANEL ASSY, FRONT (for J,UC)
	A-6704-539-A	o	PANEL (P) ASSY, FRONT (for EK)
102	X-3165-754-2	o	COVER ASSY, TC
103	X-3165-755-1	o	RETAINER ASSY, TOGGLE
104	X-3165-862-1	s	KNOB ASSY (3P)
105	X-3165-863-1	s	KNOB ASSY (2P)
106	X-3166-129-1	o	BUTTON ASSY "STOP"
107	X-3166-130-1	o	BUTTON ASSY "PLAY"
108	X-3166-131-1	o	BUTTON ASSY "REC"
109	X-3166-132-1	o	BUTTON ASSY "REW"
110	X-3166-133-1	o	BUTTON ASSY "F FWD"
111	X-3166-134-1	o	BUTTON ASSY "SEARCH"
112	X-3166-135-1	o	BUTTON ASSY "AUDIO DUB"
113	X-3166-136-1	o	BUTTON ASSY "PAUSE"
114	X-3166-137-1	o	BUTTON ASSY "EJECT"
115	X-3719-113-1	s	KNOB ASSY
116	3-169-388-01	o	SHAFT, TC COVER
117	3-169-389-01	o	CUSHION, KEY
118	3-169-390-01	s	BUTTON, RESET
119	3-169-391-01	s	BUTTON, P-V
120	3-170-161-01	s	KNOB, SW
121	3-571-850-00	s	SPRING, COMPRESSION
122	3-676-244-11	s	COVER, SW
123	3-686-085-01	s	PIN, PUSH BUTTON
124	3-686-086-01	s	CUSHION, BUTTON
125	3-729-007-01	o	PLATE, ORNAMENTAL, TOGGLE SW
126	3-173-283-01	o	PLATE, GROUND, FP

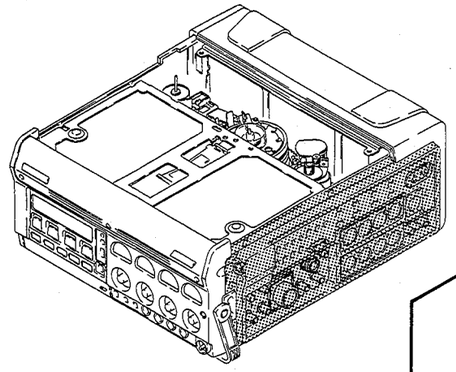
Front Panel Block

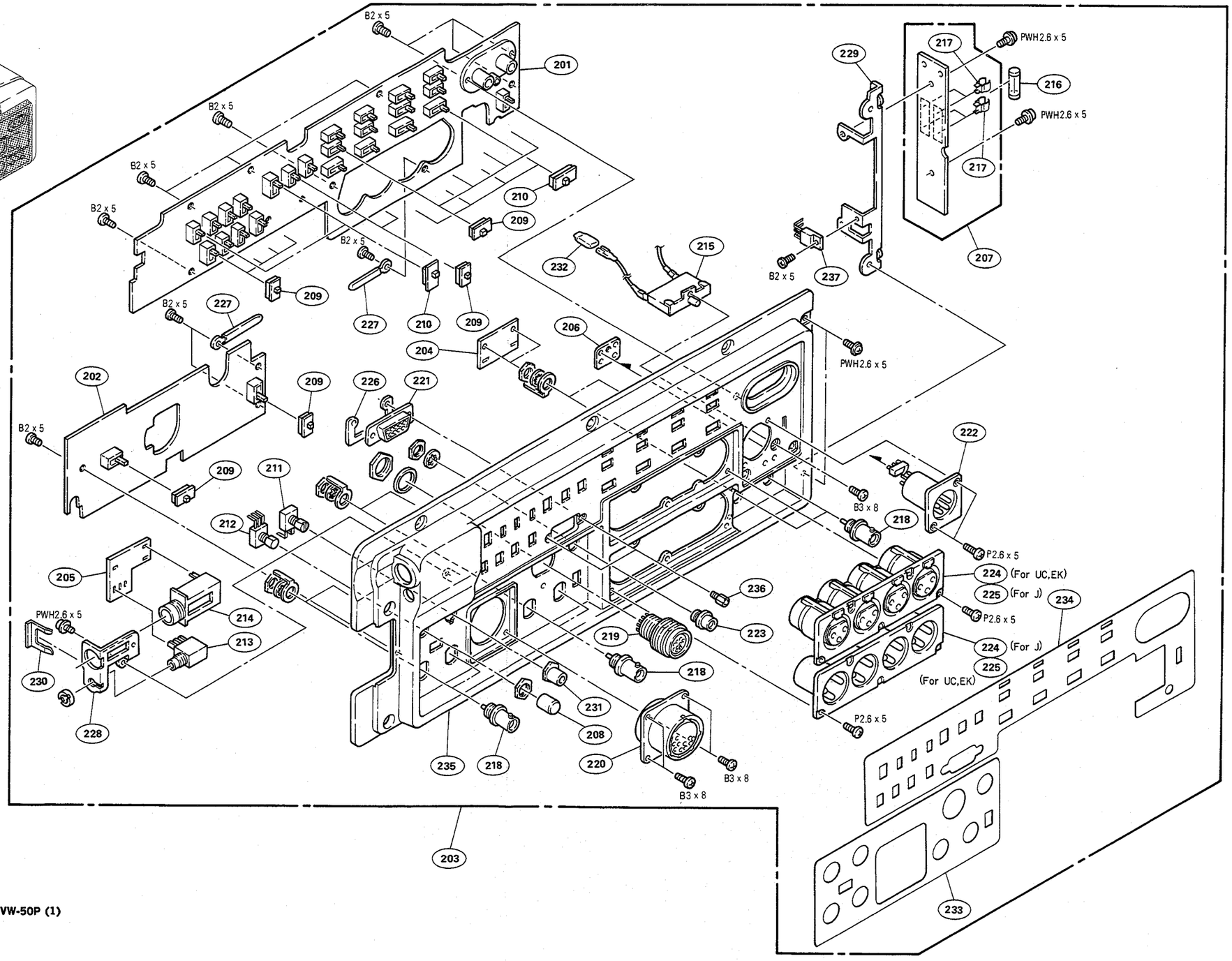




BVW-50P (1)

Connector Panel Block



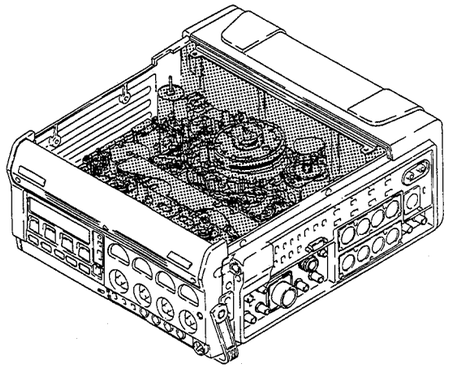


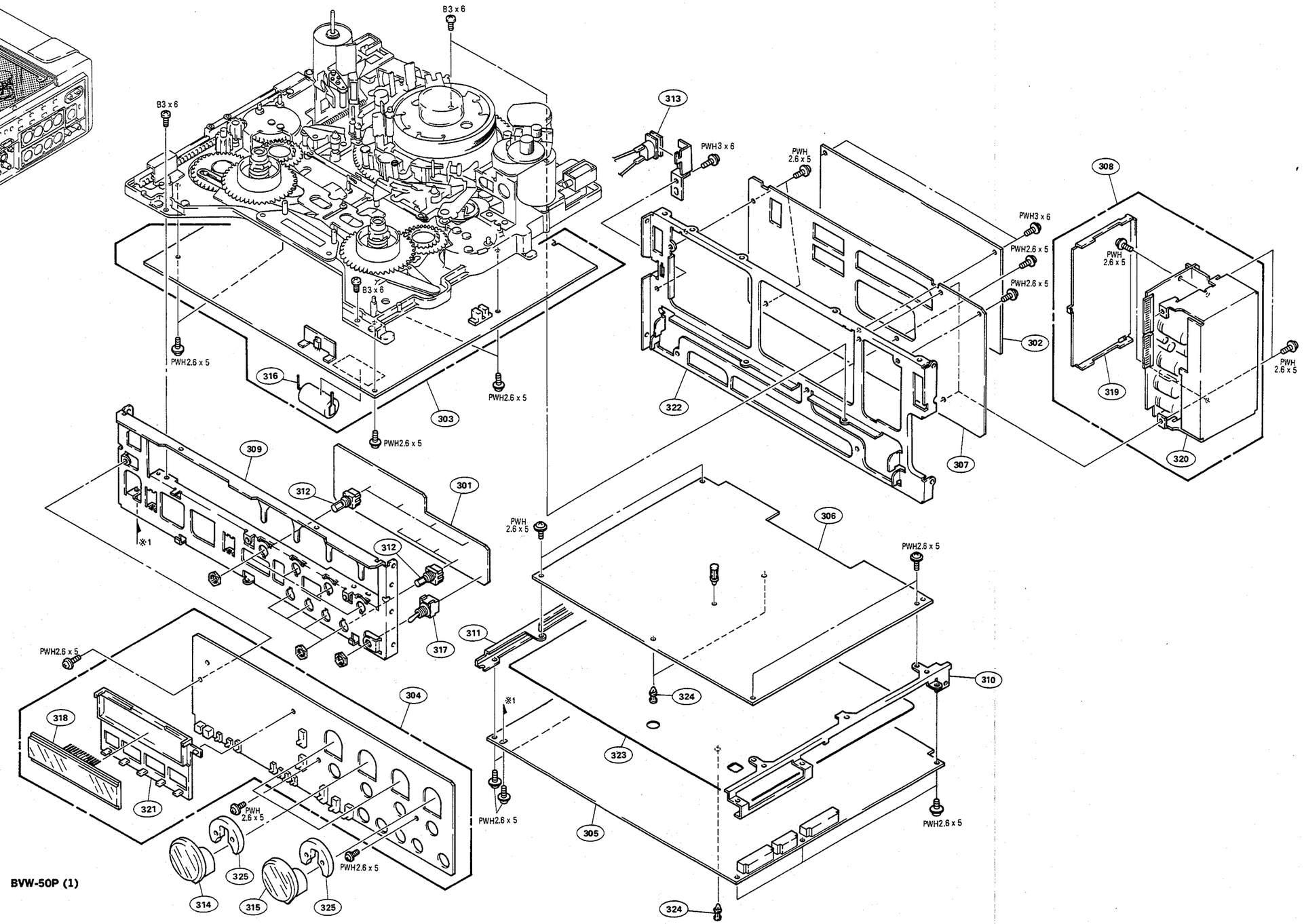
BVW-50P (1)

No.	Part No.	SP	Description
201	A-6713-423-A	o	MOUNTED CIRCUIT BOARD, CP-164 (for UC,EK)
	A-6713-424-A	o	MOUNTED CIRCUIT BOARD, CP-164J (for J)
202	A-6727-319-A	o	MOUNTED CIRCUIT BOARD, CC-47
203	A-6732-398-B	o	PANEL ASSY, CONNECTOR (for UC,EK)
	A-6732-397-B	o	PANEL ASSY, CONNECTOR (for J)
204	A-6754-268-A	o	MOUNTED CIRCUIT BOARD, CON-18
205	A-6754-269-A	o	MOUNTED CIRCUIT BOARD, DUS-339
206	A-6754-270-A	o	MOUNTED CIRCUIT BOARD, DC-52
207	A-6754-271-A	o	MOUNTED CIRCUIT BOARD, FU-52
208	X-3682-814-0	s	KNOB ASSY, CONTROL
209	X-3166-331-1	s	KNOB ASSY (2 POSI)
210	X-3166-332-1	s	KNOB ASSY (3 POSI)
211	1-241-521-11	s	RES, VAR CARBON 5K
212	1-241-522-11	s	RES, VAR CARBON 10K
213	1-507-743-21	s	JACK, MINI STEREO
214	1-507-863-51	s	JACK, PHONE STEREO
215	⚠1-532-525-31	s	BREAKER, CIRCUIT 6.3A 125V
216	⚠1-532-749-11	s	FUSE, 8A 125V
217	1-533-189-11	o	HOLDER, FUSE
218	1-561-336-00	s	CONNECTOR, COAXIAL
219	1-562-160-00	s	CONNECTOR 12P, FEMALE
220	1-562-245-00	o	CONNECTOR 26P, FEMALE
221	1-563-890-21	s	CONNECTOR, D-SUB 9P, FEMALE
222	1-564-603-11	s	CONNECTOR, XLR 4P WITH SW, MALE
223	1-565-072-11	s	CONNECTOR, ROUND TYPE 4P, FEMALE
224	1-566-616-11	s	CONNECTOR, 4-XLR 3P, FEMALE
225	1-566-617-11	s	CONNECTOR, 4-XLR 3P, MALE
226	2-139-018-01	s	NUT (D SUB 9P), PLATE
227	2-277-426-01	o	CLAMP
228	3-169-382-02	o	BRACKET, HEADPHONE
229	3-169-383-01	o	BRACKET, PANEL
230	3-169-384-01	o	PLATE, SNAP
231	3-169-385-01	o	GUARD, VR
232	3-169-455-01	s	SLEEVE, INSULATING
233	3-169-525-01	o	LABEL (2), CONNECTOR PANEL
234	3-169-563-02	o	LABEL (1), CONNECTOR PANEL (for UC EK)
	3-171-212-01	o	LABEL (1), CONNECTOR PANEL (for J)
235	3-169-564-02	o	PANEL, CONNECTOR
236	3-668-459-00	s	SCREW, CONNECTOR
237	8-729-140-19	s	TRANSISTOR 2SC3694-K

No.	Part No.	SP	Description
301	A-6713-422-A	o	MOUNTED CIRCUIT BOARD, VR-118
302	A-6713-425-A	o	MOUNTED CIRCUIT BOARD, AU-142 (for J,UC)
	A-6713-435-A	o	MOUNTED CIRCUIT BOARD, AU-142P (for EK)
303	A-6715-451-A	o	MOUNTED CIRCUIT BOARD, SST-1 (for J,UC)
	A-6715-452-A	o	MOUNTED CIRCUIT BOARD, SST-1P (for EK)
304	A-6717-611-A	o	MOUNTED CIRCUIT BOARD, KY-207
305	A-6727-320-A	o	MOUNTED CIRCUIT BOARD, VRP-1 (for J,UC)
	A-6727-336-A	o	MOUNTED CIRCUIT BOARD, VRP-1P (for EK)
306	A-6727-321-A	o	MOUNTED CIRCUIT BOARD, TBC-19 (for J,UC)
	A-6727-337-A	o	MOUNTED CIRCUIT BOARD, TBC-19P (for EK)
307	A-6755-107-A	o	MOUNTED CIRCUIT BOARD, MB-335
308	A-6771-385-A	s	POWER ASSY (for UC,EK)
	A-6771-386-A	s	POWER ASSY (for J)
309	X-3165-766-1	o	CHASSIS ASSY, FRONT
310	X-3165-768-1	o	HOLDER (R) ASSY, PC BOARD
311	X-3165-769-1	o	HOLDER (L) ASSY, PC BOARD
312	1-241-522-11	s	RES, VAR CARBON 10K
313	1-507-905-00	s	JACK, DC POWER
314	1-520-495-11	s	METER, LEVEL
315	1-520-495-41	s	METER, LEVEL
316	1-528-291-11	o	BATTERY, LITHIUM
317	1-554-355-00	s	SWITCH, TOGGLE
318	1-809-345-11	s	UNIT, LCD
319	3-169-416-01	o	CASE (B), PSW
320	3-169-541-01	o	CASE (A), PSW
321	3-169-546-02	o	HOLDER, LCD
322	3-169-567-01	o	CHASSIS, REAR
323	3-171-103-01	o	PLATE, SHIELD, VIDEO
324	3-682-057-11	s	SPACER (SMALL)
325	3-719-133-01	o	CUSHION, METER

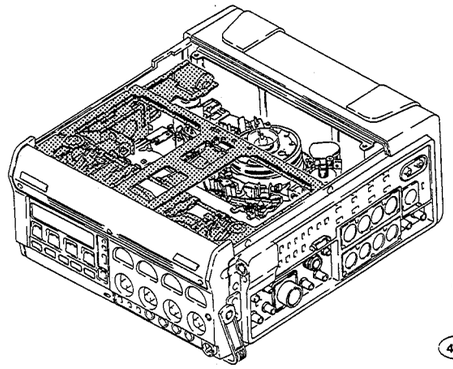
Chassis and Printed Circuit Board Block

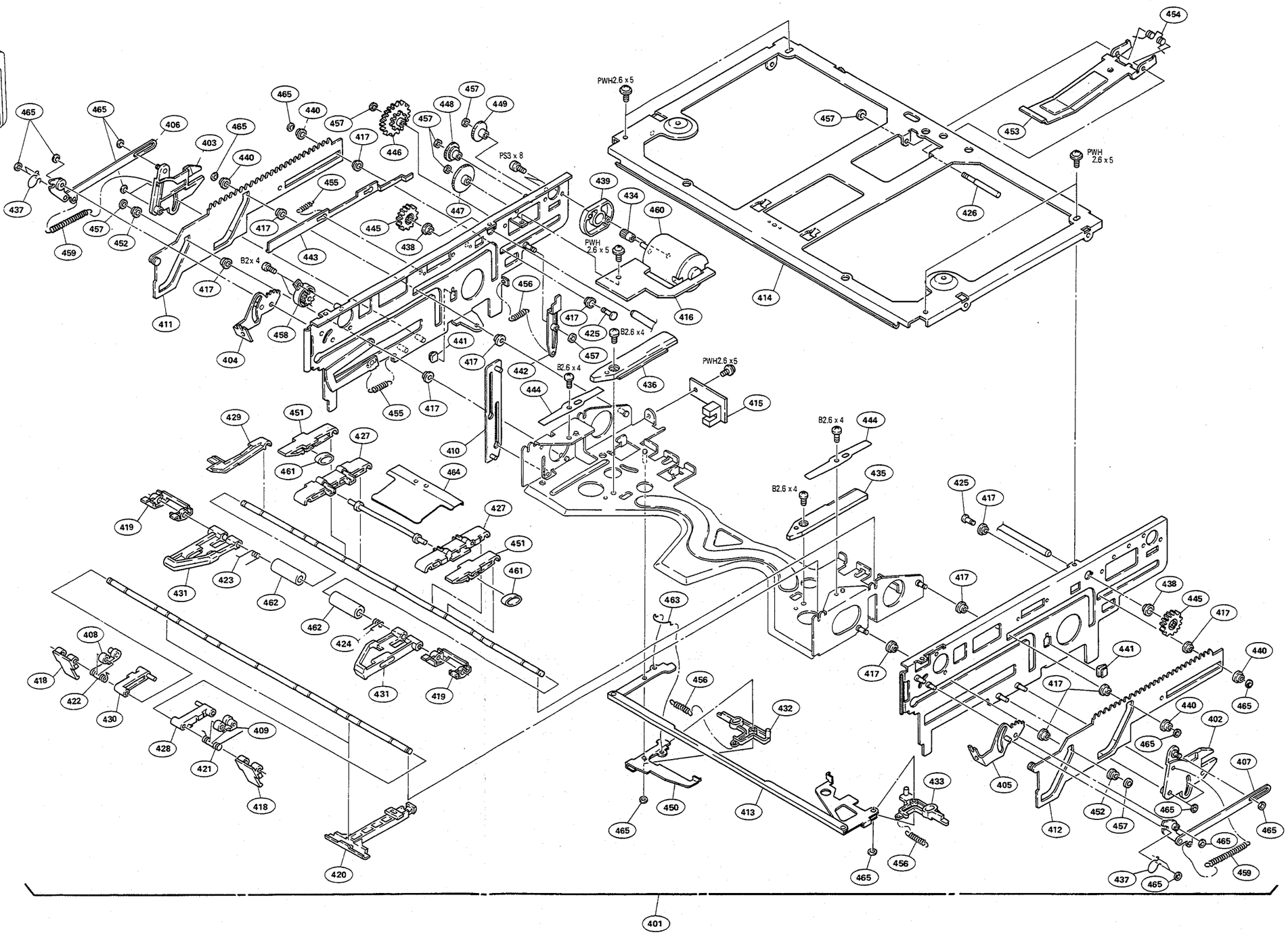




BVW-50P (1)

Cassette Compartment Block



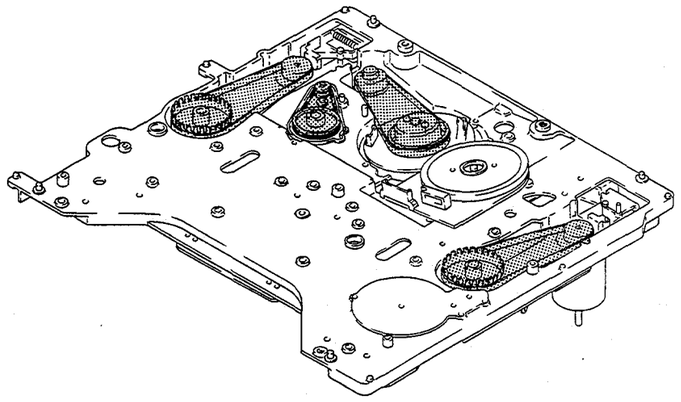


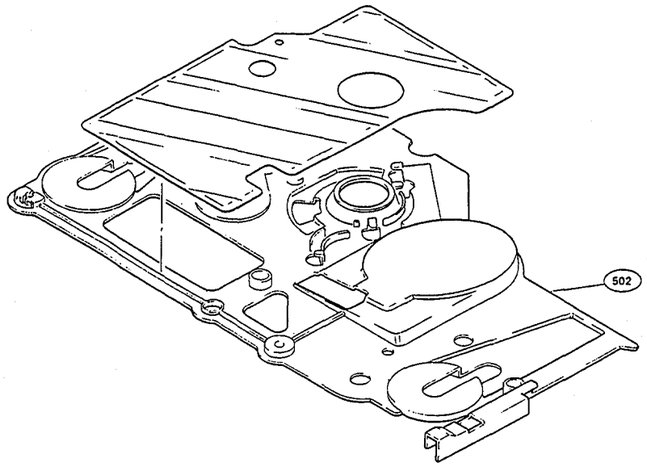
No.	Part No.	SP	Description
401	A-6751-457-A	s	CASSETTE COMPARTMENT ASSY
402	X-3165-738-1	o	CAM (R) ASSY
403	X-3165-739-1	o	CAM (L) ASSY
404	X-3165-740-1	o	ARM (L) ASSY, FF
405	X-3165-741-1	o	ARM (R) ASSY, FF
406	X-3165-742-1	o	ARM (L) ASSY, SWITCHING
407	X-3165-743-1	o	ARM (R) ASSY, SWITCHING
408	X-3165-744-2	o	ARM (L) ASSY
409	X-3165-745-2	o	ARM (R) ASSY
410	X-3165-746-3	o	ARM ASSY, RACK DRIVING
411	X-3165-747-1	o	RACK (L) ASSY, C
412	X-3165-748-1	o	RACK (R) ASSY, C
413	X-3165-770-2	o	LEVER (R) ASSY, PUSH-OUT
414	3-169-557-02	o	STAY, C
415	1-638-701-12	o	PRINTED CIRCUIT BOARD, CS-25
416	1-638-702-11	o	PRINTED CIRCUIT BOARD, CS-26
417	3-169-352-01	s	ROLLER (A), C
418	3-169-439-01	o	RETAINER (LR), CASSETTE
419	3-169-440-01	o	RETAINER (LF), CASSETTE
420	3-169-441-01	o	RETAINER (S), CASSETTE
421	3-169-442-02	o	SPRING (L), S GUIDE
422	3-169-443-02	o	SPRING (R), S GUIDE
423	3-169-444-01	o	SPRING (R), DETECTION
424	3-169-445-01	o	SPRING (L), DETECTION
425	3-169-456-01	o	SHAFT (R), ROLLER
426	3-169-457-01	o	SHAFT, ARM, LOCK
427	3-169-458-02	o	ARM, JOINT
428	3-169-459-01	o	ARM (R), LIFT
429	3-169-460-01	o	ARM, L DETECTION
430	3-169-461-01	o	ARM (L), LIFT
431	3-169-462-01	o	PLATE, GUIDG, S
432	3-169-463-02	o	ARM (L), PUSH-OUT
433	3-169-464-02	o	ARM (R), PUSH-OUT
434	3-169-465-01	s	GEAR, C PINION
435	3-169-466-02	o	GUIDE (R), CASSETTE
436	3-169-467-01	o	GUIDE (L), CASSETTE
437	3-169-468-02	o	SPRING (A), TOGGLE
438	3-169-469-01	o	BEARING
439	3-169-470-01	o	WASHER, C MOTOR
440	3-169-471-01	s	ROLLER (B), C
441	3-169-472-01	o	CAM, PUSH-OUT
442	3-169-473-01	o	SHUTTER, C DOWN
443	3-169-474-02	o	SHUTTER, C UP
444	3-169-475-01	o	SPRING, CASSETTE RETAINER
445	3-169-477-02	s	GEAR (5), C
446	3-169-478-01	s	GEAR (4), C
447	3-169-479-02	s	GEAR (3), C
448	3-169-480-01	s	GEAR (2), C
449	3-169-481-01	s	GEAR (1), C
450	3-169-482-02	o	LEVER (L), PUSH-OUT
451	3-169-499-01	o	LEVER, CORRECTION DETECTION
452	3-170-821-01	s	ROLLER (C), C
453	3-170-822-01	o	ARM, C LOCK
454	3-170-823-02	s	SPRING, LOCK ARM
455	3-578-388-00	s	SPRING, TENSION
456	3-646-214-00	s	SPRING
457	3-676-387-00	s	WASHER, POLY 1.6mm DIA., 0.25T
458	3-712-786-21	s	DUMPER, OIL
459	3-701-788-xx	o	SPRING, TENSION (48T)
460	8-835-179-01	s	MOTOR, DC MCB2B15
461	3-172-394-01	o	SPACER, RUBBER
462	3-172-873-01	s	ROLLER, CASSETTE RETAINER
463	3-172-874-01	s	SPRING, C IN SHUTTER
464	3-172-876-01	o	SPRING (A), C STOPPER
465	3-669-465-00	s	WASHER 1.5, STOPPER

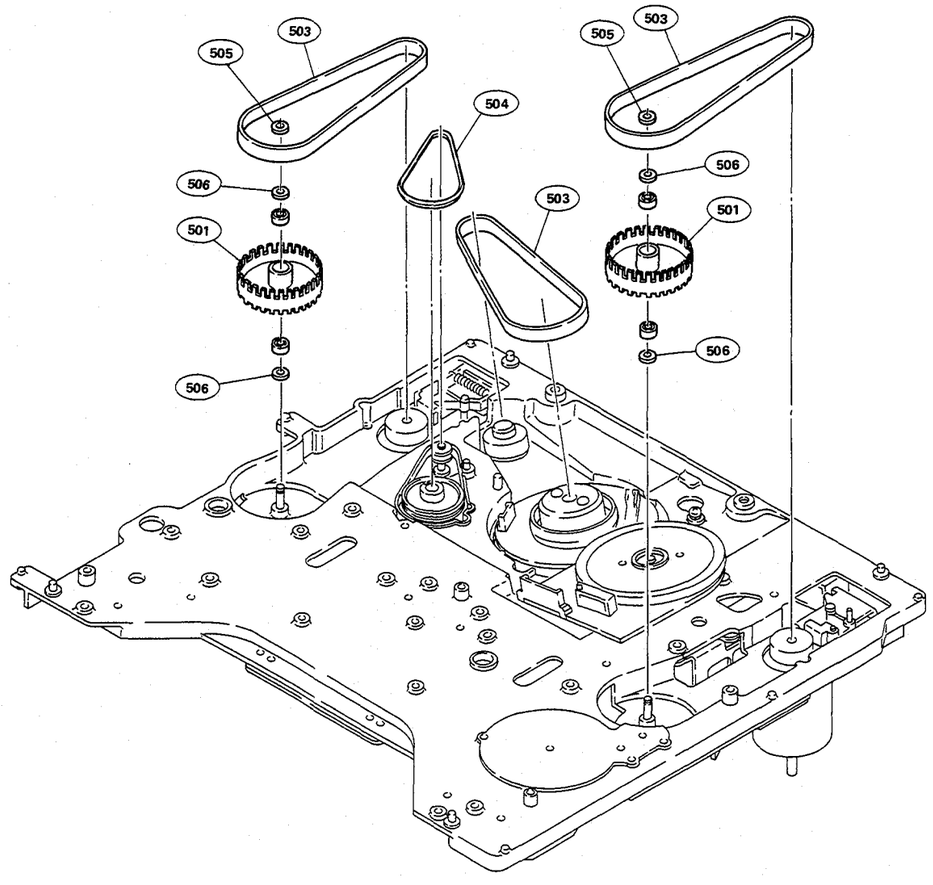
BELT BLOCK

No.	Part No.	SP	Description
501	3-169-503-03	s	PULLEY (B), RELAY
502	3-171-949-01	o	COVER, BELT
503	3-172-003-01	s	BELT, DRIVING
504	3-676-303-00	s	BELT, T.H MOTOR
505	3-676-387-00	s	WASHER, POLY 1.6mm DIA., 0.25T
506	3-701-437-21	s	WASHER, POLY 2mm DIA., 0.5T

Belt Block



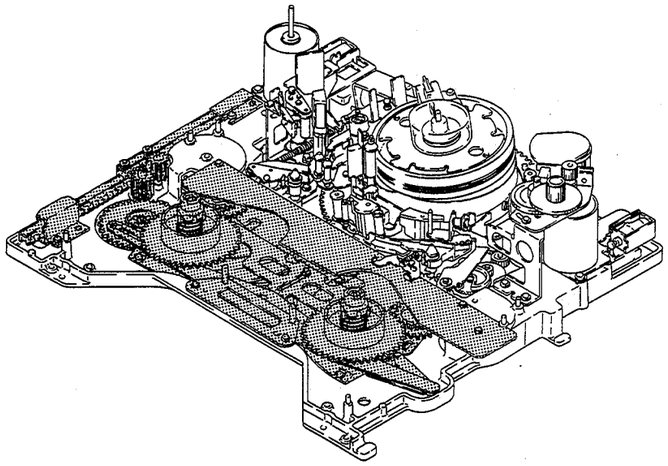


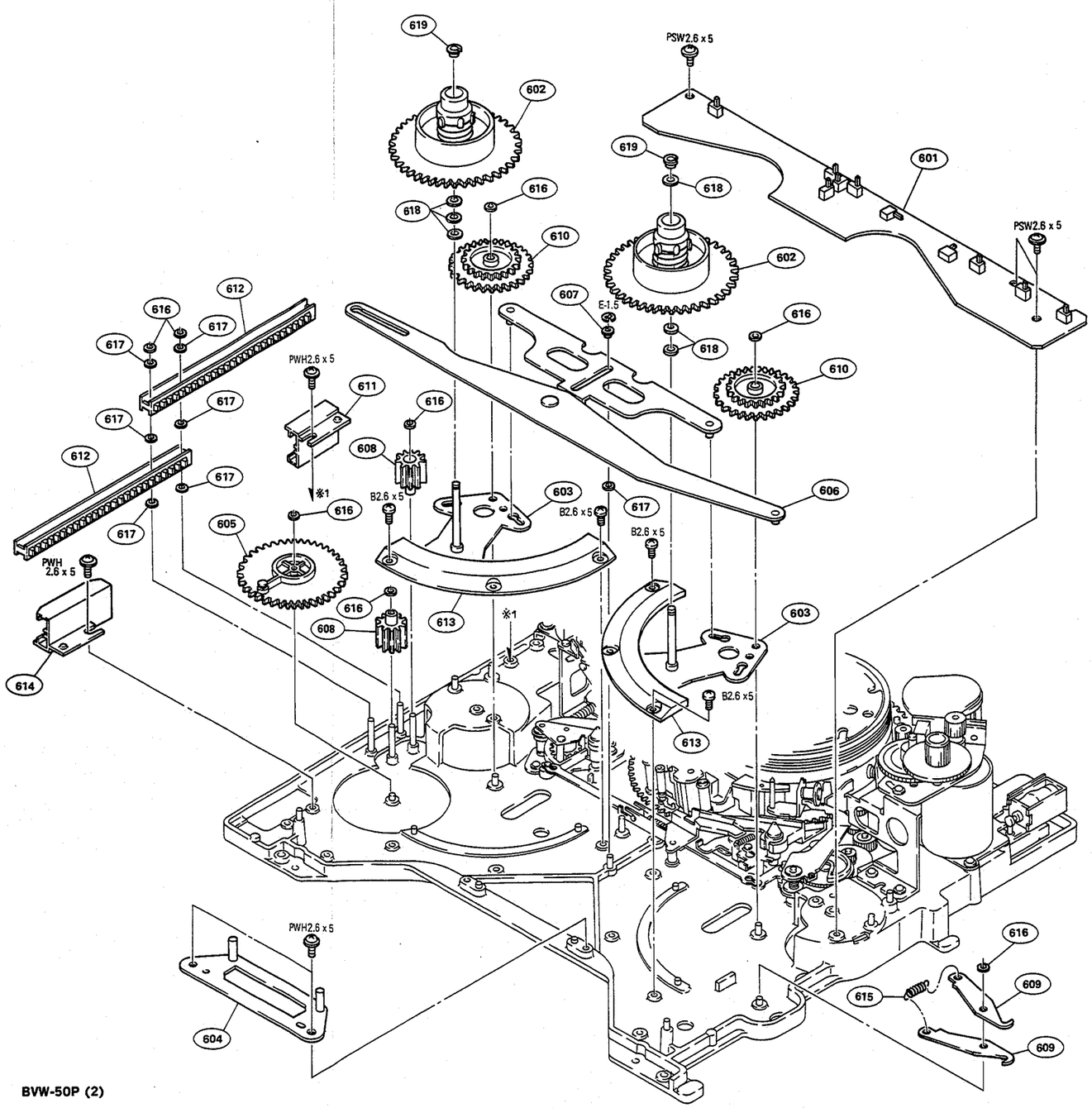


BVW-50P (3)

13-15

Reel Table Block





BVW-50P (2)

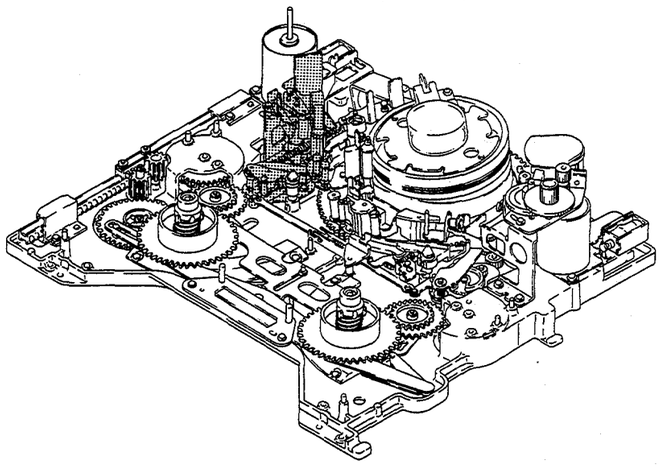
No.	Part No.	SP	Description
601	A-6717-612-A	o	MOUNTED CIRCUIT BOARD, SE-158
602	A-6739-095-A	s	TABLE ASSY, REEL
603	X-3165-760-1	o	ARM ASSY, REEL
604	X-3165-761-1	o	BASE ASSY, C SUPPORT
605	X-3165-763-1	s	GEAR ASSY, OSCILLATION
606	X-3165-775-2	o	LINK ASSY, SLIDE
607	3-171-987-01	s	ROLLER (G)
608	3-169-500-01	s	GEAR, IDLE
609	3-169-501-02	o	PLATE, LIMITER
610	3-169-504-01	s	GEAR, RELAY
611	3-169-509-01	s	RAIL, GUIDE
612	3-169-511-01	o	RACK, DRIVING
613	3-169-512-01	o	RETAINER, REEL ARM
614	3-172-123-01	s	RAIL, GUIDE (F)
615	3-549-014-00	s	SPRING, TENSION
616	3-676-387-00	s	WASHER, POLY 1.6mm DIA., 0.25T
617	3-701-437-21	s	WASHER, POLY 2mm DIA., 0.5T
618	3-701-439-11	s	WASHER, POLY 3mm DIA., 0.25T
619	3-703-074-00	s	CAP 3, SHAFT

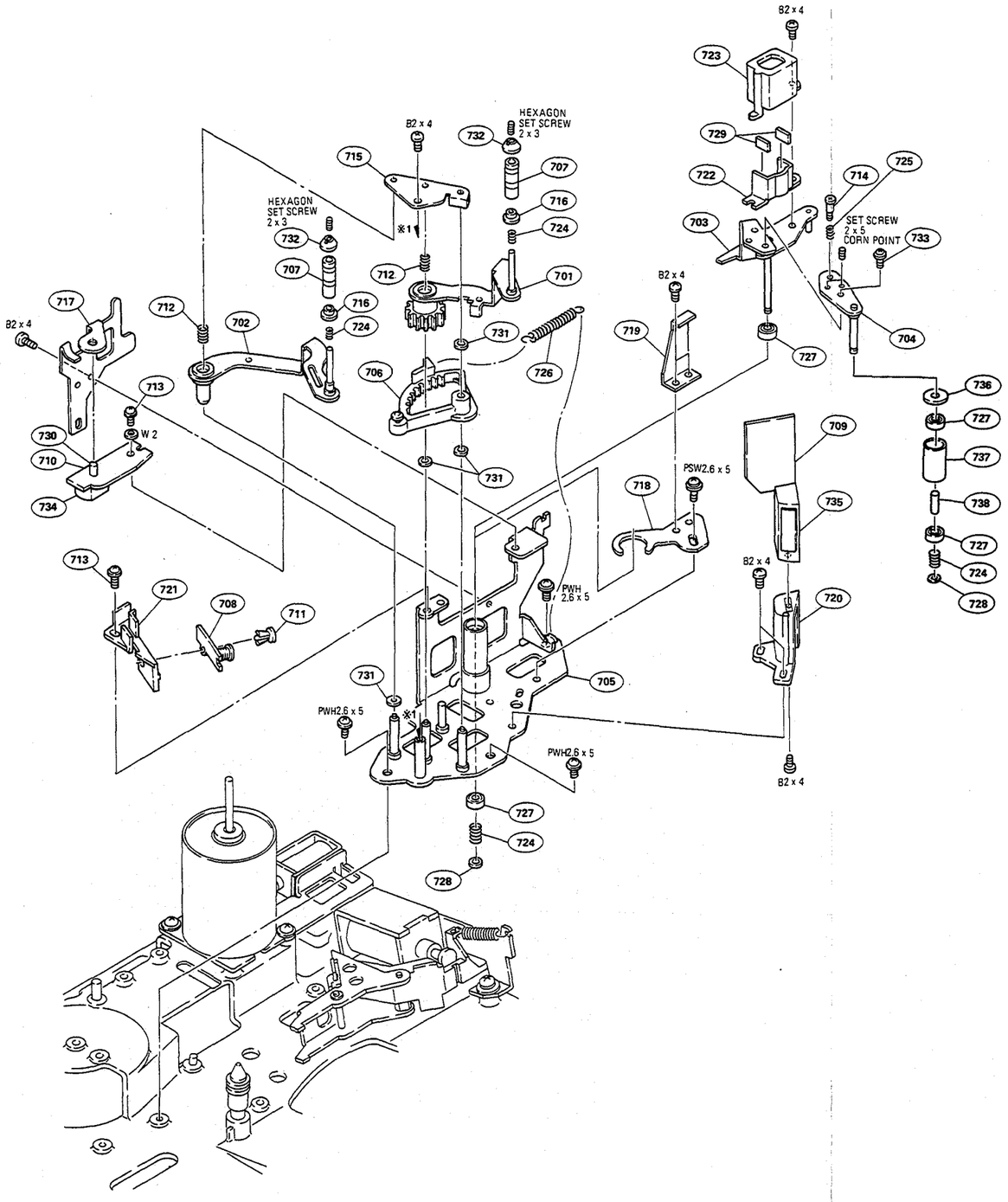
TENSION REGULATOR AND FULL ERASE HEAD BLOCK

No.	Part No.	SP	Description
701	X-3165-725-1	o	ARM (A) ASSY, S DRAWER
702	X-3165-726-1	o	ARM (B) ASSY, S DRAWER
703	X-3165-727-1	o	ARM ASSY, TENSION REGULATOR
704	X-3165-728-2	o	ARM (B) ASSY,TENSION REGULATOR
705	X-3165-729-1	o	BASE ASSY, TENSION REGULATOR
706	X-3165-730-1	o	GEAR ASSY, S LINK
707	X-3722-322-1	s	ROLLER ASSY, POM
708	1-543-316-21	s	HEAD, SENSING (SMALL TYPE)
709	1-638-696-12	o	PRINTED CIRCUIT BOARD, FE-11
710	1-638-710-11	o	PRINTED CIRCUIT BOARD, TR-57
711	2-279-715-01	o	RIVET, NYLON
712	2-618-901-00	s	SPRING
713	2-640-315-01	s	SCREW, M2x5 (SMALL, +P, SW)
714	2-641-517-03	s	SCREW, SKEW
715	3-169-298-01	o	SUPPORT, SH
716	3-169-299-02	s	FLANGE, LOWER
717	3-169-300-01	o	SUPPORT, DME
718	3-169-301-01	o	PLATE, ADJUSTMENT, TENSION
719	3-169-302-02	o	SPRING (TR), PLATE
720	3-169-303-01	o	DECK, FE HEAD
721	3-169-304-01	o	BASE, END SENSOR
722	3-169-305-01	o	PLATE, YOKE
723	3-169-336-01	o	GUARD, DME
724	3-171-210-01	s	SPRING, COMPRESSION
725	3-848-711-01	s	SPRING, COMPRESSION
726	3-568-387-00	s	SPRING, TENSION
727	3-650-312-00	s	BEARING, BALL (NO FLANGE)
728	3-676-387-00	s	WASHER, POLY 1.6mm DIA., 0.25T
729	3-680-828-00	o	MAGNET
730	3-680-830-01	o	HOLDER, DME
731	3-701-437-11	s	WASHER, POLY 2mm DIA., 0.25T
732	3-722-400-02	s	FLANGE (C), UPPER
733	3-729-013-71	s	SCREW, M1.4X5, WASHER HEAD(+P)
734	8-745-001-07	s	DM-230-1
735	8-825-772-61	s	HEAD, ERASE EF291-21A
736	3-172-373-01	s	FLANGE, TR ROLLER
737	3-676-138-01	s	ROLLER, TAPE
738	3-687-158-01	s	SPACER, BEARING

TENSION REGULATOR AND FULL ERASE HEAD BLOCK

Tension Regulator and Full Erase Head Block



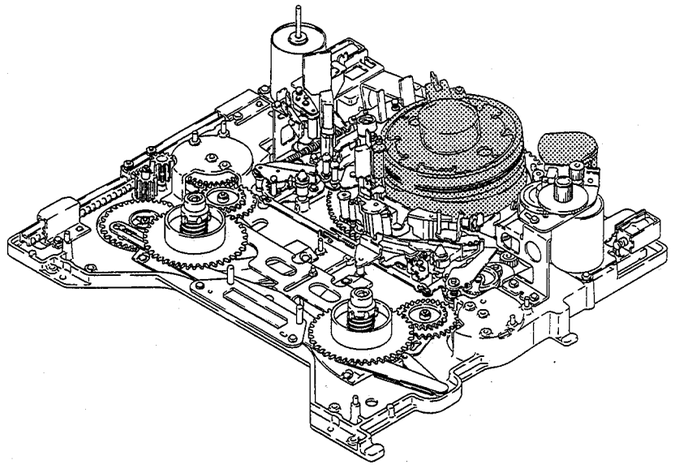


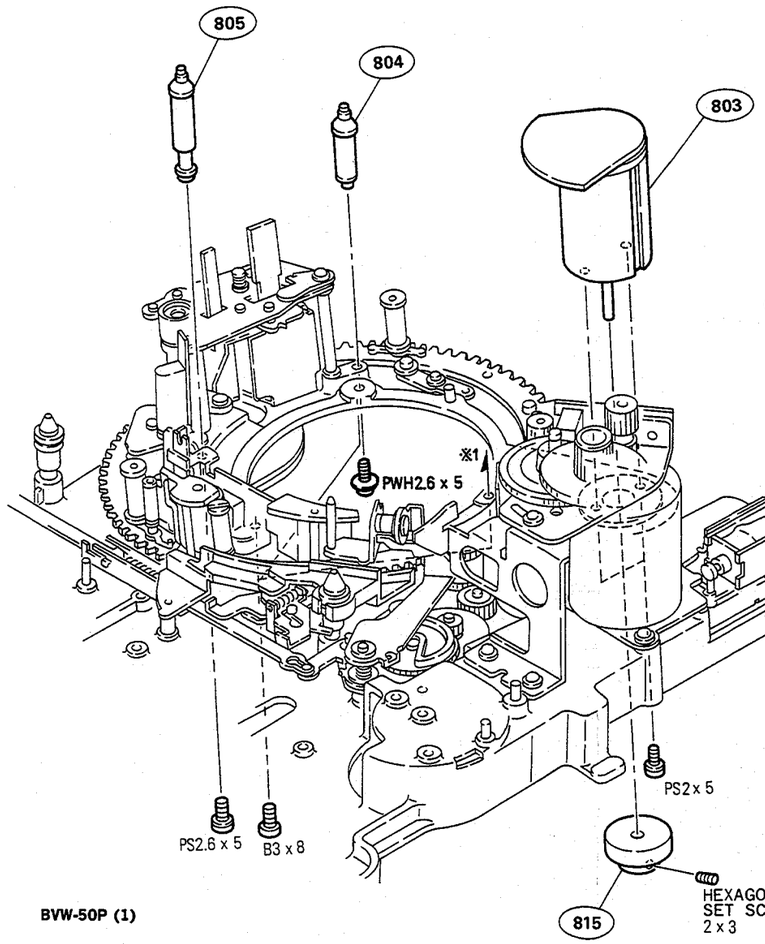
BVW-50P (2)

13-19

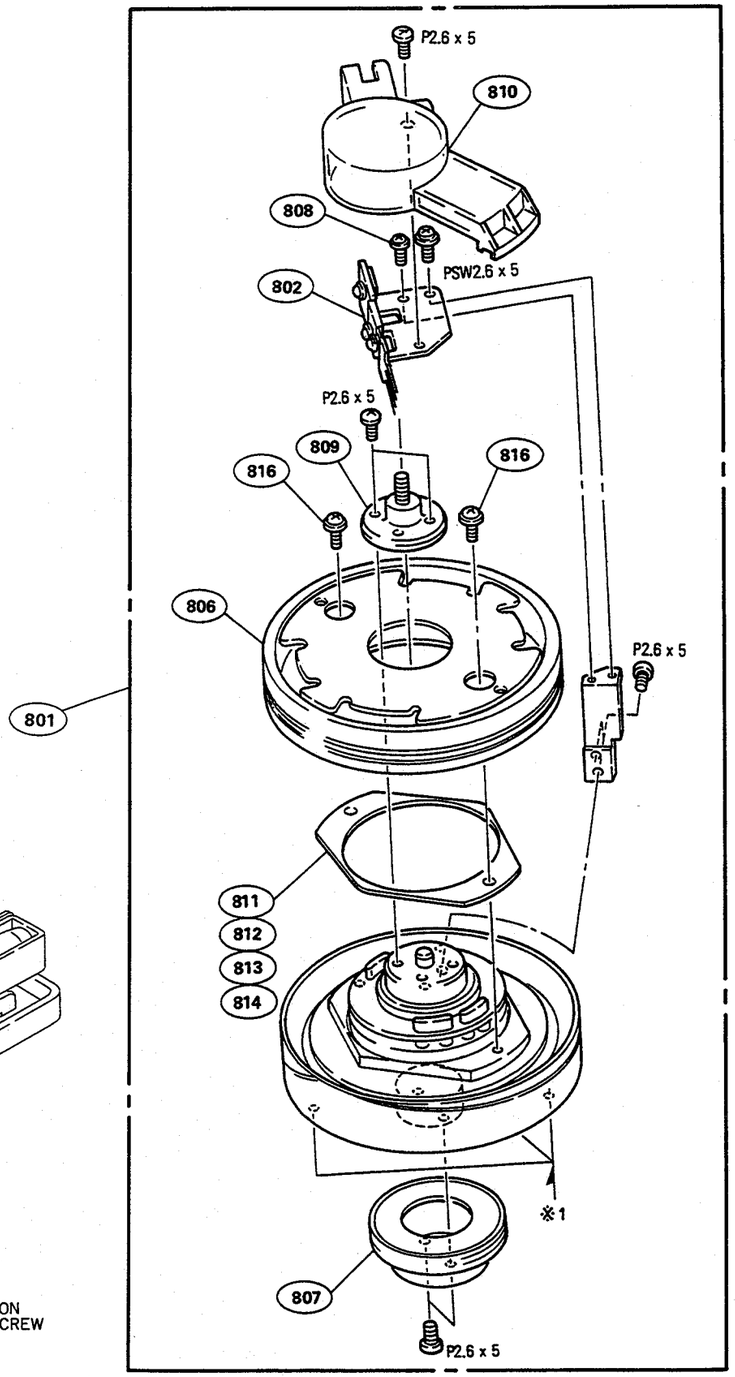
HEAD DRUM AND TAPE GUIDE BLOCK

Head Drum and Tape Guide Block





BVW-50P (1)



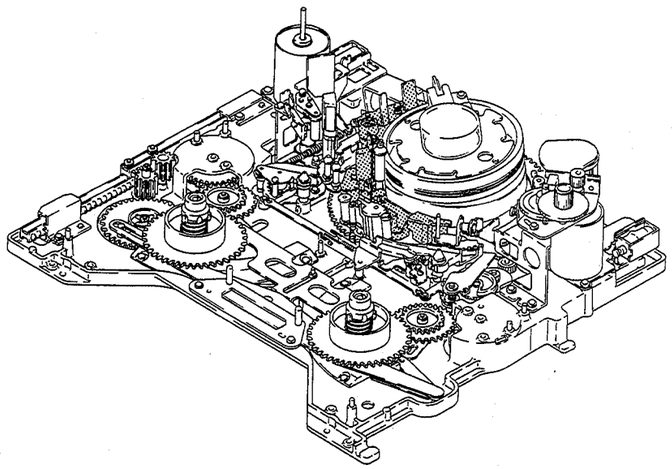
13-20

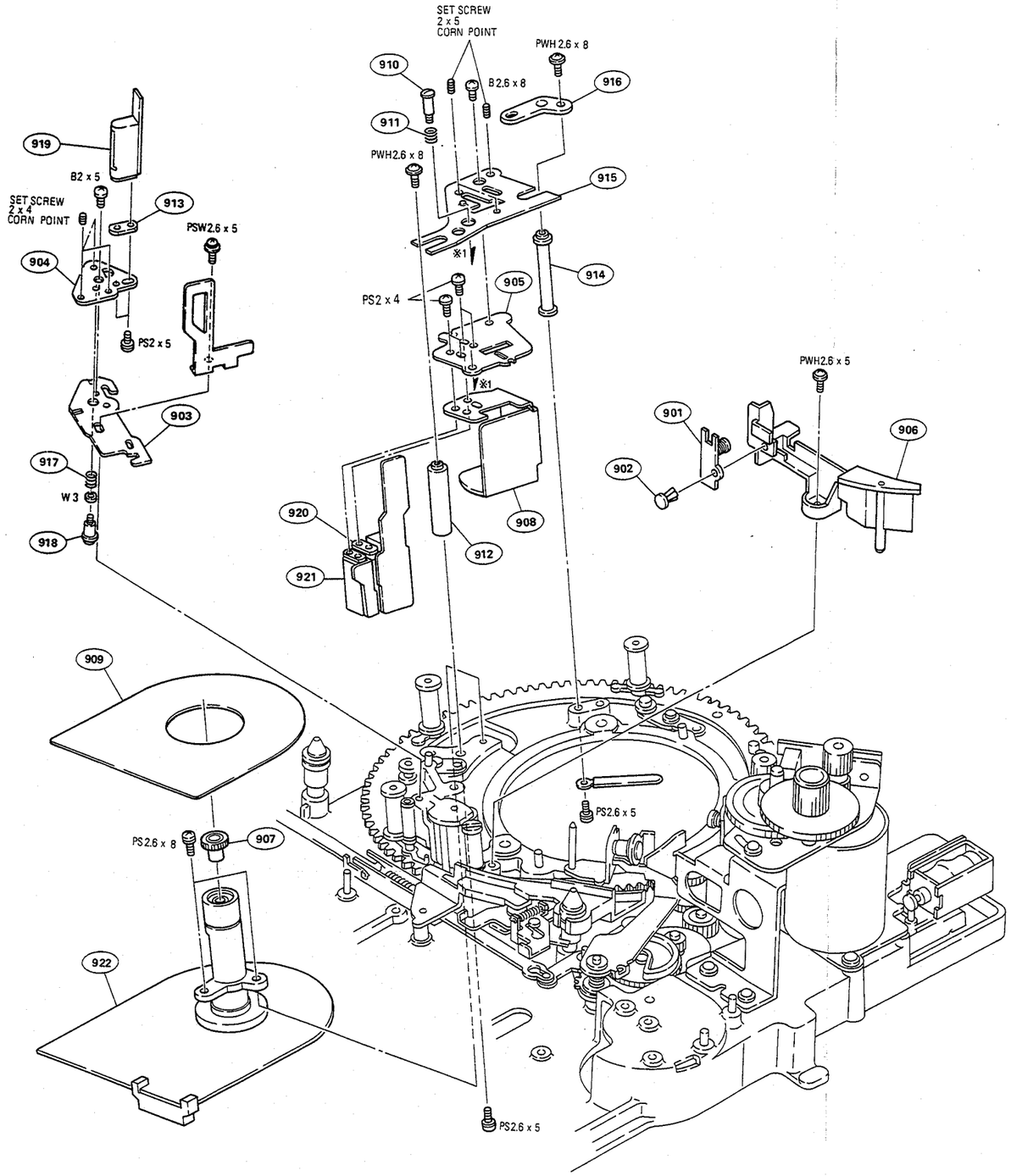
No.	Part No.	SP	Description
801	A-6050-765-A	s	HEAD DRUM ASSY, DBH-21A-R (for J,UC)
	A-6050-807-A	s	HEAD DRUM ASSY, DBH-22A-R (for EK)
802	A-6050-786-A	s	BRUSH ASSY
803	A-6737-186-B	s	MOTOR ASSY, DRUM
804	A-6746-024-E	s	GUIDE ASSY, EXIT
805	A-6746-068-A	s	GUIDE ASSY, ENTRANCE
806	A-6762-451-A	s	ROTALY UPPER DRUM ASSY, DBR-21-R (for J,UC)
	A-6762-454-A	s	ROTALY UPPER DRUM ASSY, DBR-22-R (for EK)
807	X-3165-802-1	s	PULLEY ASSY
808	2-640-315-01	s	SCREW, M2x5 (SMALL, +P, SW)
809	A-6050-788-A	s	RING ASSY, SLIP
810	3-169-944-02	o	COVER, BRUSH
811	3-717-120-01	s	SPACER, FLANGE
812	3-717-120-11	s	SPACER, FLANGE
813	3-717-120-21	s	SPACER, FLANGE
814	3-717-120-31	s	SPACER, FLANGE
815	3-719-122-02	s	PULLEY, D MOTOR
816	3-729-125-01	s	SCREW, M2.6X8

STATIONARY HEAD AND CAPSTAN BLOCK

No.	Part No.	SP	Description
901	1-543-316-21	s	HEAD, SENSING (SMALL TYPE)
902	2-279-715-01	s	RIVET, NYLON
903	3-169-340-01	o	DECK, CTL HEAD
904	3-169-341-01	o	BRACKET, CTL
905	3-169-344-02	o	BRACKET, AT
906	3-169-507-02	o	HOLDER (B), TOP SENSOR
907	3-169-508-01	o	CAP, CAPSTAN
908	3-169-535-02	o	PLATE, SHIELD, AT
909	3-170-801-01	s	PLATE, SHIELD, C
910	3-643-451-00	s	SCREW, AZIMUTH ADJUSTMENT
911	3-653-350-00	s	SPRING, COMPRESSION
912	3-676-013-00	o	SUPPORT (A), AU HEAD
913	3-687-142-01	o	SPACER, CTL HEAD
914	3-698-732-01	o	SUPPORT (B), AU HEAD
915	3-719-124-03	o	BRACKET (1), AT HEAD
916	3-719-255-01	o	ADJUSTOR, Y
917	4-855-250-01	s	SPRING, COMPRESSION
918	4-918-991-01	s	SCREW, STEP
919	8-825-554-83	s	HEAD, CTL PS244-21B
920	8-825-776-51	s	HEAD EPS244-2103D
921	8-825-776-31	s	HEAD PS244-2103F
922	8-835-437-01	s	MOTOR, DC SCV-0201A

Stationary Head and Capstan Block

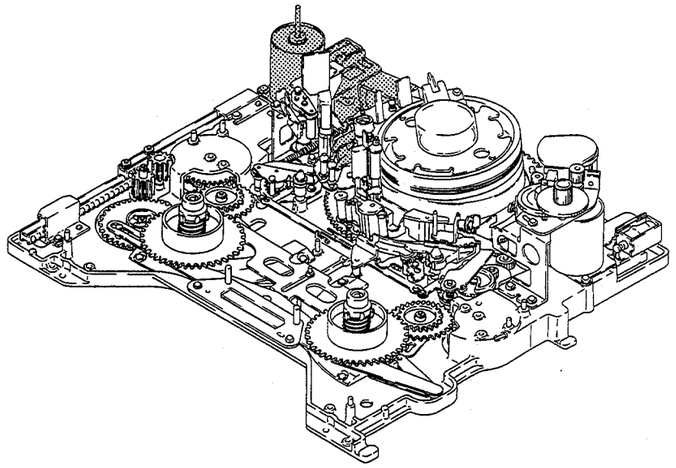


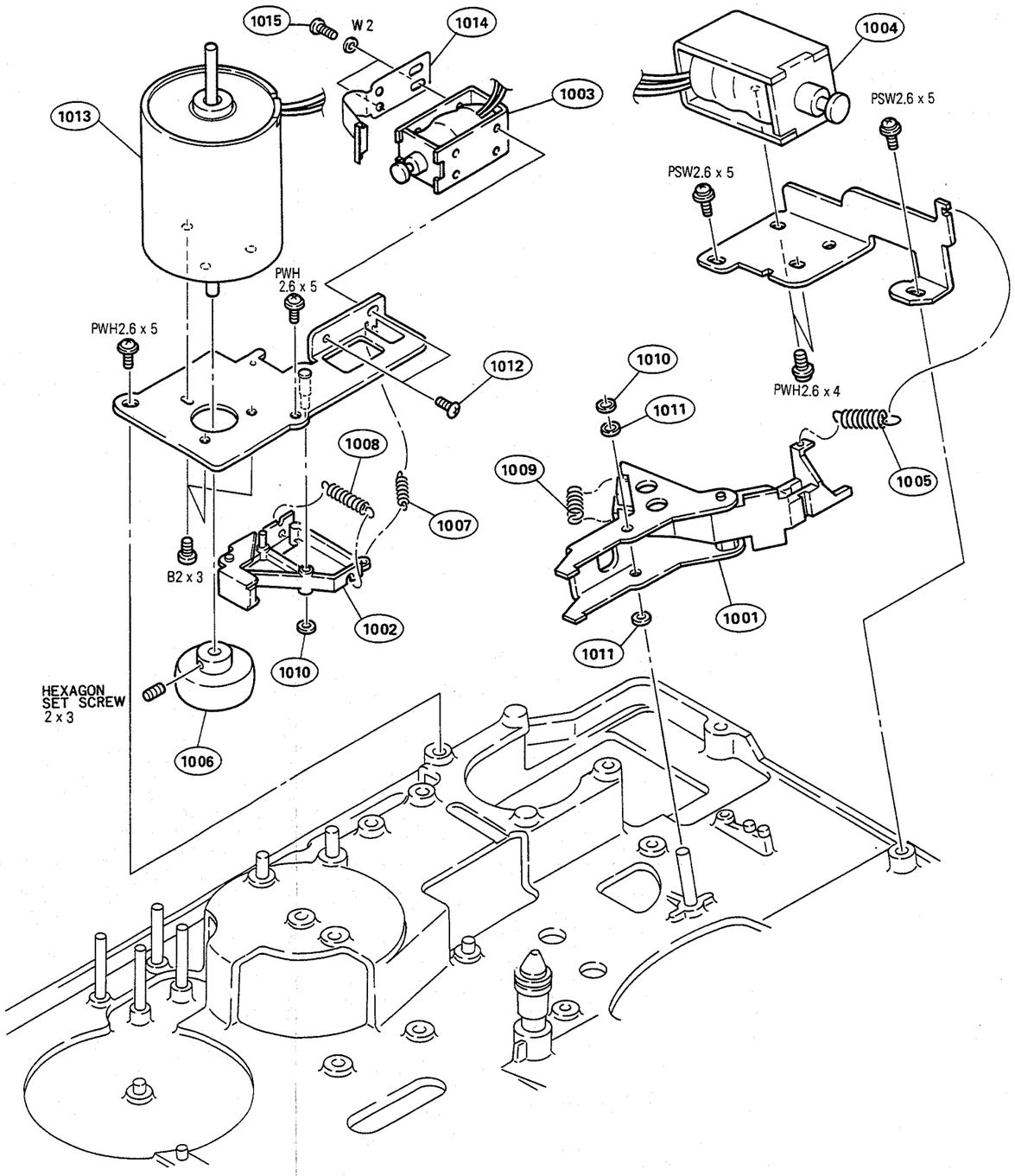


BVW-50P (1)

PINCH PRESS AND S REEL MOTOR BLOCK

Pinch Press and S Reel Motor Block





BVW-50P (2)

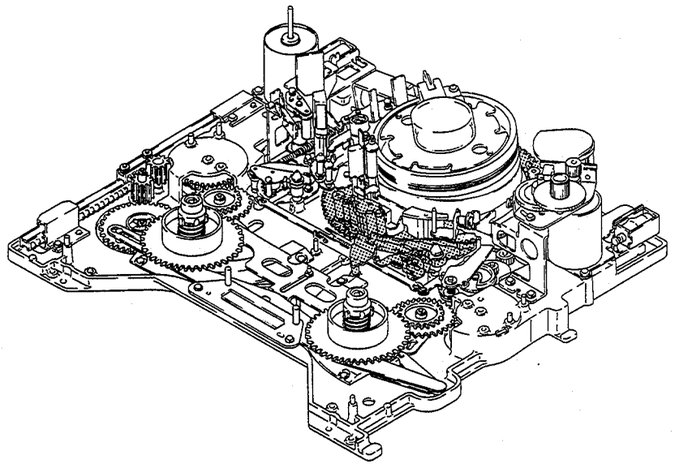
13-24

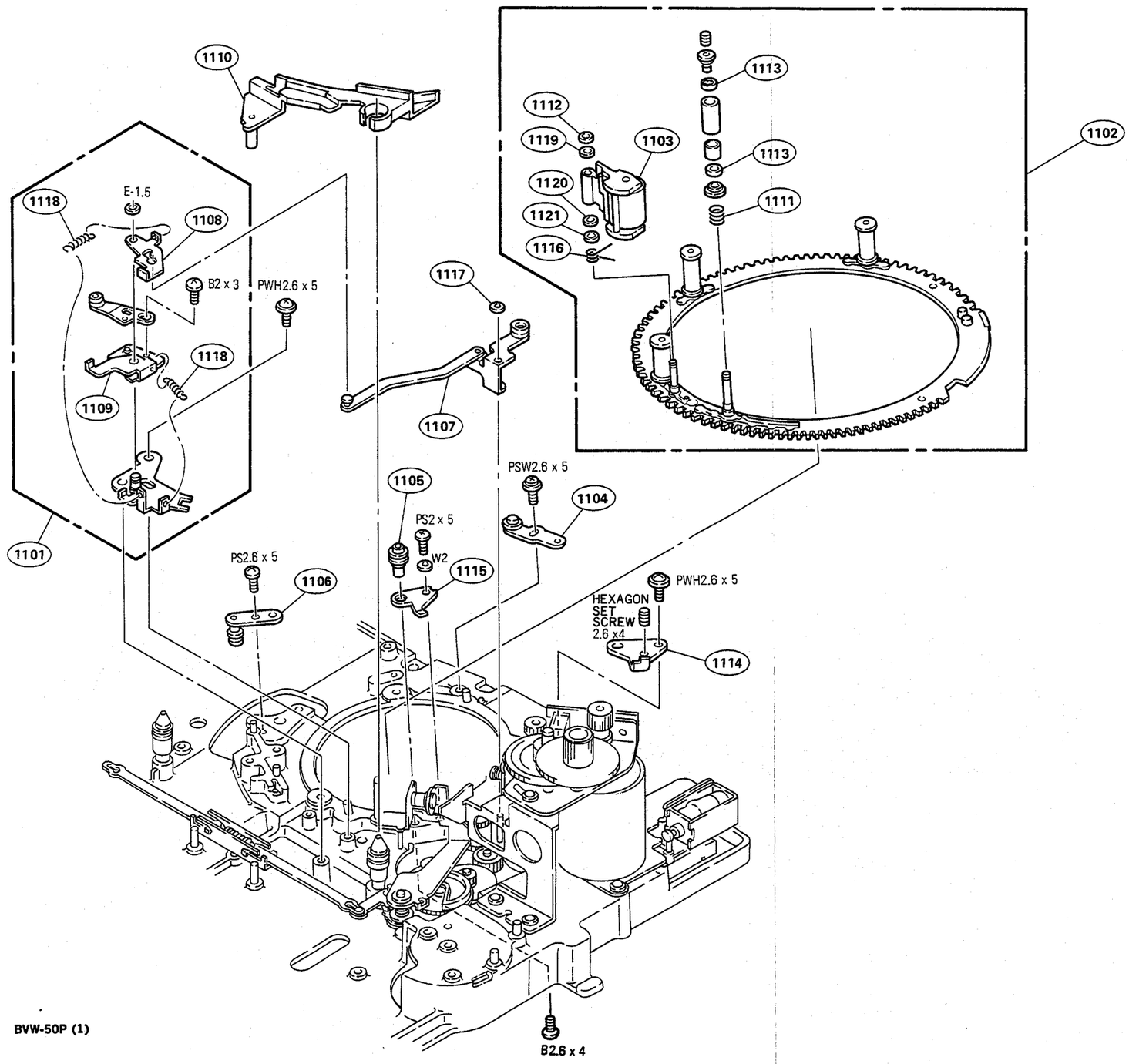
No.	Part No.	SP	Description
1001	X-3165-724-1	o	LEVER ASSY, PINCH PRESS
1002	X-3165-731-1	o	ARM ASSY, BRAKE
1003	1-454-334-51	s	SOLENOID, PLUNGER
1004	1-454-383-21	s	SOLENOID, PLUNGER
1005	3-140-263-XX	s	SPRING, TENSION (24T)
1006	3-169-370-02	o	PULLEY, MOTOR
1007	3-307-374-01	s	SPRING, TENSION
1008	3-530-248-xx	s	SPRING, TENSION (23T)
1009	3-563-103-01	s	SPRING, TENSION
1010	3-676-387-00	s	WASHER, POLY 1.6mm DIA., 0.25T
1011	3-701-438-11	s	WASHER, POLY 2.5mm DIA., 0.25T
1012	7-627-553-28	s	SCREW,PRECISION +P 2X2.5
1013	8-835-441-01	s	MOTOR R432276751A
1014	3-173-411-01	s	SPRING, BRAKE PLATE
1015	7-627-553-17	s	SCREW, PRECISION +P2X2

THREADING RING BLOCK

No.	Part No.	SP	Description
1101	A-6750-283-B	s	STOPPER ASSY, RING
1102	A-6750-285-B	s	RING ASSY, THREADING
1103	X-3165-756-2	s	ARM ASSY, PINCH
1104	X-3165-757-1	o	PLATE ASSY, ADJUSTMENT, ROLLER
1105	X-3165-758-1	o	SHAFT ASSY, RING ROLLER
1106	X-3165-759-1	o	PLATE ASSY, RG
1107	X-3165-764-1	s	LEVER (A) ASSY, STOPPER
1108	3-169-329-01	o	LEVER (A), SWITCH
1109	3-169-330-01	o	LEVER (B), SWITCH
1110	3-169-510-02	o	GUARD, PINCH
1111	3-538-940-01	s	SPRING, COMPRESSION
1112	3-559-408-11	s	WASHER, POLY 1.2mm DIA., 0.25T
1113	3-650-312-00	s	BEARING, BALL (NO FLANGE)
1114	3-676-034-00	o	STOPPER (B), RING
1115	3-676-181-00	o	STOPPER (A), RING
1116	3-676-304-00	s	SPRING
1117	3-676-387-00	s	WASHER, POLY 1.6mm DIA., 0.25T
1118	3-678-724-00	s	SPRING, TENSION
1119	3-701-436-01	s	WASHER, POLY 1.6mm DIA., 0.13T
1120	3-701-436-11	s	WASHER, POLY 1.6mm DIA., 0.25T
1121	3-701-436-21	s	WASHER, POLY 1.6mm DIA., 0.5T

Threading Ring Block



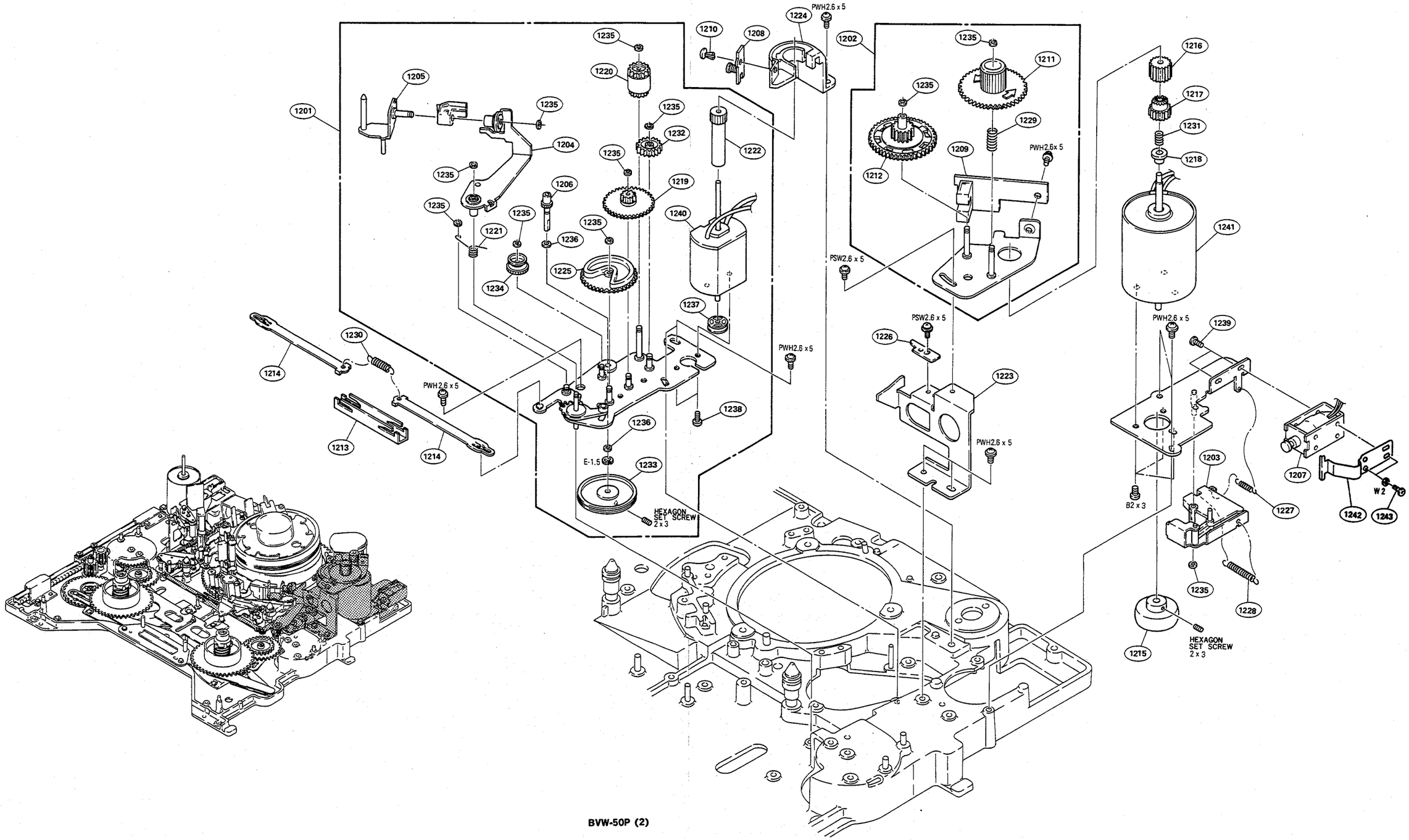


BVW-50P (1)

13-27

GEAR AND T REEL MOTOR BLOCK

Gear and T Reel Motor Block



BVW-50P (2)

13-28

No.	Part No.	SP	Description
1201	A-6750-286-A	s	GEAR BLOCK ASSY
1202	A-6750-287-B	o	EJECT ASSY, MANUAL
1203	X-3165-731-1	o	ARM ASSY, BRAKE
1204	X-3165-734-1	o	ARM ASSY, DRAWER
1205	X-3165-735-1	s	LINK ASSY, SLANT
1206	X-3676-050-0	s	GEAR ASSY, MOTHER
1207	1-454-334-51	s	SOLENOID, PLUNGER
1208	1-543-316-21	s	HEAD, SENSING (SMALL TYPE)
1209	1-638-705-11	o	PRINTED CIRCUIT BOARD, DET-15
1210	2-279-715-01	s	RIVET, NYLON
1211	3-169-312-01	s	GEAR, MANUAL DRIVING
1212	3-169-313-01	s	GEAR, MIDWAY
1213	3-169-337-01	o	CASE, LIMITER
1214	3-169-338-01	o	JOINT, ST
1215	3-169-370-02	o	PULLEY, MOTOR
1216	3-169-371-01	s	PLATE, CLUTCH
1217	3-169-372-01	s	GEAR, REEL MOTOR DRIVING
1218	3-169-373-01	s	WASHER, SPRING
1219	3-169-401-02	s	GEAR, DECELERATION
1220	3-169-402-01	s	GEAR, RING DRIVE
1221	3-169-403-01	s	SPRING, DRAWER ARM
1222	3-169-404-01	s	GEAR, THREADING MOTOR DRIVING
1223	3-169-502-03	o	PLATE, LID OPEN
1224	3-169-506-01	o	HOLDER (A), TOP SENSOR
1225	3-169-538-01	s	CAM, DRAWER
1226	3-170-244-01	o	PLATE, SLANT
1227	3-307-374-01	s	SPRING, TENSION
1228	3-530-248-xx	s	SPRING, TENSION (23T)
1229	3-561-540-01	s	SPRING, COMPRESSION
1230	3-563-103-01	s	SPRING, TENSION
1231	3-637-331-00	s	SPRING, COMPRESSION (L)
1232	3-676-157-00	s	GEAR, TRANSFER
1233	3-676-166-00	s	PULLEY, DECELERATION
1234	3-676-167-00	s	PULLEY, EJECT
1235	3-676-387-00	s	WASHER, POLY 1.6mm DIA., 0.25T
1236	3-701-437-11	s	WASHER, POLY 2mm DIA., 0.25T
1237	3-713-318-01	s	PULLEY, MOTOR
1238	7-627-552-38	s	SCREW,PRECISION +P 1.7X3
1239	7-627-553-28	s	SCREW,PRECISION +P 2X2.5
1240	8-835-440-01	s	MOTOR DN20-Q7Z1B
1241	8-835-441-01	s	MOTOR R432276751A
1242	3-173-411-01	s	SPRING, BRAKE PLATE
1243	7-627-553-17	s	SCREW, PRECISION +P2X2

13-3. ELECTRICAL PART LIST

CAPACITOR, CHIP ELECT

Part No.	SP	Description
1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
1-126-393-11	s	ELEECT, CHIP 33uF 20% 10V
1-126-394-11	s	ELEECT, CHIP 10uF 20% 16V
1-126-396-11	s	ELEECT, CHIP 47uF 20% 16V
1-126-397-11	s	ELEECT, CHIP 33uF 20% 25V
1-126-398-11	s	ELEECT, CHIP 4.7uF 20% 35V
1-126-401-11	s	ELEECT, CHIP 1uF 20% 50V
1-126-402-11	s	ELEECT, CHIP 2.2uF 20% 50V
1-126-403-11	s	ELEECT, CHIP 3.3uF 20% 50V
1-126-412-11	s	ELEECT, CHIP 220uF 20% 4V

CAPACITOR, CHIP TANATALUM

Part No.	SP	Description
1-135-072-21	s	TANTALUM, CHIP 0.22uF 10% 35V
1-135-073-00	s	TANTALUM, CHIP 0.33uF 10% 35V
1-135-079-21	s	TANTALUM, CHIP 3.3uF 10% 35V
1-135-091-00	s	TANTALUN, CHIP 1uF 10% 16V
1-135-146-21	s	TANTALUM, CHIP 0.68uF 20% 25V
1-135-153-21	s	TANTALUM, CHIP 2.2uF 20% 25V
1-135-157-21	s	TANTALUM, CHIP 10uF 10% 6.3V
1-135-159-21	s	TANTALUM, CHIP 10uF 10% 20V
1-135-161-21	s	TANTALUM, CHIP 22uF 10% 10V
1-135-163-21	s	TANTALUM, CHIP 47uF 10% 4V
1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
1-135-176-21	s	TANTALUM, CHIP 0.68uF 20% 35V
1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
1-135-179-21	s	TANTALUM, CHIP 2.2uF 10% 16V
1-135-181-21	s	TANTALUM, CHIP 4.7uF 10% 6.3V
1-135-187-21	s	TANTALUM, CHIP 2.2uF 10% 4V
1-135-190-21	s	TANTALUM, CHIP 0.1uF 10% 20V
1-135-192-21	s	TANTALUM, CHIP 0.47uF 10% 20V
1-135-201-11	s	TANTALUM, CHIP 10uF 20% 6.3V
1-135-202-21	s	TANTALUM, CHIP 22uF 10% 4V
1-135-210-11	s	TANTALUM, CHIP 4.7uF 20% 10V
1-135-211-11	s	TANTALUM, CHIP 6.8uF 20% 6.3V
1-135-216-11	s	TANTALUM, CHIP 10uF 20% 10V

CAPACITOR, CERAMIC

Part No.	SP	Description
1-162-907-11	s	CERAMIC, CHIP 2PF 50V
1-162-908-11	s	CERAMIC, CHIP 3PF 50V
1-162-910-11	s	CERAMIC, CHIP 5PF 50V
1-162-913-11	s	CERAMIC, CHIP 8PF 50V
1-162-915-11	s	CERAMIC, CHIP 10PF 50V
1-162-916-11	s	CERAMIC, CHIP 12PF 5% 50V
1-162-917-11	s	CERAMIC, CHIP 15PF 5% 50V
1-162-918-11	s	CERAMIC, CHIP 18PF 5% 50V
1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
1-162-920-11	s	CERAMIC, CHIP 27PF 5% 50V
1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
1-162-924-11	s	CERAMIC, CHIP 56PF 5% 50V
1-162-925-11	s	CERAMIC, CHIP 68PF 5% 50V
1-162-926-11	s	CERAMIC, CHIP 82PF 5% 50V
1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
1-162-928-11	s	CERAMIC, CHIP 120PF 5% 50V
1-162-957-11	s	CERAMIC, CHIP 220PF 5% 50V
1-162-959-11	s	CERAMIC, CHIP 330PF 5% 50V
1-162-963-11	s	CERAMIC, CHIP 680PF 10% 50V
1-162-965-11	s	CERAMIC, CHIP 0.0015uF 10% 50V
1-162-966-11	s	CERAMIC, CHIP 0.0022uF 10% 50V
1-162-967-11	s	CERAMIC, CHIP 0.0033uF 10% 50V
1-162-968-11	s	CERAMIC, CHIP 0.0047uF 10% 50V
1-162-969-11	s	CERAMIC, CHIP 0.0068uF 10% 25V
1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
1-162-974-11	s	CERAMIC, CHIP 0.01uF 50V
1-162-975-11	s	CERAMIC, CHIP 24PF 5% 50V
1-162-979-11	s	CERAMIC, CHIP 0.0027uF 10% 50V
1-162-995-11	s	CERAMIC, CHIP 0.022uF 50V
1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V

RESISTOR, CHIP METAL

Part No.	SP	Description
1-216-789-11	s	METAL, CHIP 2.2 5% 1/16W
1-216-791-11	s	METAL, CHIP 3.3 5% 1/16W
1-216-797-11	s	METAL, CHIP 10 5% 1/16W
1-216-801-11	s	METAL, CHIP 22 5% 1/16W
1-216-803-11	s	METAL, CHIP 33 5% 1/16W
1-216-804-11	s	METAL, CHIP 39 5% 1/16W
1-216-805-11	s	METAL, CHIP 47 5% 1/16W
1-216-807-11	s	METAL, CHIP 68 5% 1/16W
1-216-808-11	s	METAL, CHIP 82 5% 1/16W
1-216-809-11	s	METAL, CHIP 100 5% 1/16W
1-216-812-11	s	METAL, CHIP 180 5% 1/16W
1-216-813-11	s	METAL, CHIP 220 5% 1/16W
1-216-814-11	s	METAL, CHIP 270 5% 1/16W
1-216-815-11	s	METAL, CHIP 330 5% 1/16W
1-216-816-11	s	METAL, CHIP 390 5% 1/16W
1-216-817-11	s	METAL, CHIP 470 5% 1/16W
1-216-819-11	s	METAL, CHIP 680 5% 1/16W
1-216-820-11	s	METAL, CHIP 820 5% 1/16W
1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
1-216-824-11	s	METAL, CHIP 1.8K 5% 1/16W
1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
1-216-826-11	s	METAL, CHIP 2.7K 5% 1/16W
1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
1-216-828-11	s	METAL, CHIP 3.9K 5% 1/16W
1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
1-216-831-11	s	METAL, CHIP 6.8K 5% 1/16W
1-216-832-11	s	METAL, CHIP 8.2K 5% 1/16W
1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
1-216-834-11	s	METAL, CHIP 12K 5% 1/16W
1-216-835-11	s	METAL, CHIP 15K 5% 1/16W
1-216-836-11	s	METAL, CHIP 18K 5% 1/16W
1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
1-216-838-11	s	METAL, CHIP 27K 5% 1/16W
1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
1-216-842-11	s	METAL, CHIP 56K 5% 1/16W
1-216-843-11	s	METAL, CHIP 68K 5% 1/16W
1-216-844-11	s	METAL, CHIP 82K 5% 1/16W
1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
1-216-846-11	s	METAL, CHIP 120K 5% 1/16W
1-216-847-11	s	METAL, CHIP 150K 5% 1/16W
1-216-848-11	s	METAL, CHIP 180K 5% 1/16W
1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
1-216-850-11	s	METAL, CHIP 270K 5% 1/16W
1-216-851-11	s	METAL, CHIP 330K 5% 1/16W
1-216-852-11	s	METAL, CHIP 390K 5% 1/16W
1-216-853-11	s	METAL, CHIP 470K 5% 1/16W
1-216-854-11	s	METAL, CHIP 560K 5% 1/16W
1-216-855-11	s	METAL, CHIP 680K 5% 1/16W
1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
1-216-863-11	s	METAL, CHIP 3.3M 5% 1/16W
1-216-864-11	s	METAL, CHIP 0 5% 1/16W
1-216-994-11	s	METAL, CHIP 13K 0.50% 1/16W
1-218-184-11	s	METAL, CHIP 997 0.1% 1/16W
1-218-269-11	s	METAL, CHIP 360 5% 1/16W
1-218-292-11	s	METAL, CHIP 20K 5% 1/16W

Part No.	SP	Description
1-218-295-11	s	METAL, CHIP 4.3K 5% 1/16W
1-218-298-11	s	METAL, CHIP 2.2K 1% 1/16W
1-218-313-11	s	METAL, CHIP 560 1% 1/16W
1-218-330-11	s	METAL, CHIP 11K 5% 1/16W
1-218-348-11	s	METAL, CHIP 110K 5% 1/16W
1-218-662-91	s	METAL, CHIP 56 0.50% 1/16W
1-218-664-91	s	METAL, CHIP 68 0.50% 1/16W
1-218-665-91	s	METAL, CHIP 75 0.50% 1/16W
1-218-668-91	s	METAL, CHIP 100 0.50% 1/16W
1-218-670-91	s	METAL, CHIP 120 0.50% 1/16W
1-218-671-91	s	METAL, CHIP 130 0.50% 1/16W
1-218-672-91	s	METAL, CHIP 150 0.50% 1/16W
1-218-674-91	s	METAL, CHIP 180 0.50% 1/16W
1-218-675-91	s	METAL, CHIP 200 0.50% 1/16W
1-218-679-91	s	METAL, CHIP 300 0.50% 1/16W
1-218-680-91	s	METAL, CHIP 330 0.50% 1/16W
1-218-682-91	s	METAL, CHIP 390 0.50% 1/16W
1-218-685-91	s	METAL, CHIP 510 0.50% 1/16W
1-218-687-91	s	METAL, CHIP 620 0.50% 1/16W
1-218-688-11	s	METAL, CHIP 680 0.50% 1/16W
1-218-691-91	s	METAL, CHIP 910 0.50% 1/16W
1-218-692-91	s	METAL, CHIP 1K 0.50% 1/16W
1-218-693-91	s	METAL, CHIP 1.1K 0.50% 1/16W
1-218-694-91	s	METAL, CHIP 1.2K 0.50% 1/16W
1-218-695-91	s	MEATL, CHIP 1.3K 0.50% 1/16W
1-218-696-91	s	METAL, CHIP 1.5K 0.50% 1/16W
1-218-697-91	s	MEATL, CHIP 1.6K 0.50% 1/16W
1-218-698-91	s	METAL, CHIP 1.8K 0.50% 1/16W
1-218-699-91	s	METAL, CHIP 2K 0.50% 1/16W
1-218-701-11	s	METAL, CHIP 2.4K 0.50% 1/16W
1-218-702-91	s	METAL, CHIP 2.7K 0.50% 1/16W
1-218-703-91	s	METAL, CHIP 3K 0.50% 1/16W
1-218-704-11	s	METAL, CHIP 3.3K 0.50% 1/16W
1-218-705-91	s	METAL, CHIP 3.6K 0.50% 1/16W
1-218-706-11	s	METAL, CHIP 3.9K 0.50% 1/16W
1-218-707-91	s	METAL, CHIP 4.3K 0.50% 1/16W
1-218-708-11	s	METAL, CHIP 4.7K 0.50% 1/16W
1-218-709-91	s	METAL, CHIP 5.1K 0.50% 1/16W
1-218-711-91	s	MEATL, CHIP 6.2K 0.50% 1/16W
1-218-712-91	s	METAL, CHIP 6.8K 0.50% 1/16W
1-218-713-91	s	METAL, CHIP 7.5K 0.50% 1/16W
1-218-715-91	s	METAL, CHIP 9.1K 0.50% 1/16W
1-218-723-91	s	MEATL, CHIP 20K 0.50% 1/16W
1-218-727-91	s	MEATL, CHIP 30K 0.50% 1/16W
1-218-728-91	s	METAL, CHIP 33K 0.50% 1/16W
1-218-729-91	s	METAL, CHIP 36K 0.50% 1/16W
1-218-733-91	s	METAL, CHIP 51K 0.50% 1/16W
1-218-734-91	s	METAL, CHIP 56K 0.50% 1/16W
1-218-735-91	s	METAL, CHIP 62K 0.50% 1/16W
1-218-746-91	s	METAL, CHIP 180K 0.50% 1/16W
1-218-748-91	s	METAL, CHIP 220K 0.50% 1/16W
1-218-922-91	s	METAL, CHIP 3.26K 0.10% 1/16W

INDUCTOR, CHIP

Part No.	SP	Description
1-408-769-41	s	INDUCTOR, CHIP 2.2UH
1-408-771-11	s	INDUCTOR, CHIP 3.3UH
1-408-773-31	s	INDUCTOR, CHIP 4.7UH
1-408-774-11	s	INDUCTOR, CHIP 5.6UH
1-408-776-00	s	INDUCTOR, CHIP 8.2UH
1-408-777-00	s	INDUCTOR, CHIP 10UH
1-408-778-21	s	INDUCTOR, CHIP 12UH
1-408-779-31	s	INDUCTOR, CHIP 15UH
1-408-781-00	s	INDUCTOR, CHIP 22UH
1-408-783-00	s	INDUCTOR, CHIP 33UH
1-498-784-11	s	INDUCTOR, CHIP 39UH
1-408-785-21	s	INDUCTOR, CHIP 47UH
1-408-787-00	s	INDUCTOR, CHIP 68UH
1-408-788-21	s	INDUCTOR, CHIP 82UH
1-408-789-21	s	INDUCTOR, CHIP 100UH
1-408-791-00	s	INDUCTOR, CHIP 150uH
1-408-793-21	s	INDUCTOR, CHIP 220UH
1-408-794-00	s	INDUCTOR, CHIP 270UH
1-408-795-21	s	INDUCTOR, CHIP 330UH
1-408-797-11	s	INDUCTOR, CHIP 470UH

AU-142P BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6713-435-A	o	MOUNTED CIRCUIT BOARD, AU-142P
C206	1-163-077-00	s	CERAMIC, CHIP 0.1uF 10% 25V
C256	1-163-077-00	s	CERAMIC, CHIP 0.1uF 10% 25V
C308	1-164-227-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C358	1-164-227-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C402	1-164-369-11	s	CERAMIC, CHIP 330PF 5% 500V
C404	1-164-369-11	s	CERAMIC, CHIP 330PF 5% 500V
C406	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C410	1-164-315-11	s	CERAMIC, CHIP 470PF 10% 50V
C412	1-164-363-11	s	CERAMIC, CHIP 560PF 5% 50V
C413	1-164-245-11	s	CERAMIC, CHIP 0.015uF 10% 25V
C416	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C441	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C452	1-164-369-11	s	CERAMIC, CHIP 330PF 5% 500V
C454	1-164-369-11	s	CERAMIC, CHIP 330PF 5% 500V
C456	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C460	1-164-315-11	s	CERAMIC, CHIP 470PF 10% 50V
C462	1-164-363-11	s	CERAMIC, CHIP 560PF 5% 50V
C463	1-164-245-11	s	CERAMIC, CHIP 0.015uF 10% 25V
C466	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C491	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C504	1-135-155-21	s	TANTALUM, CHIP 4.7uF 10% 16V
C507	1-131-363-00	s	TANTALUM 4.7uF 10% 20V
C553	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C571	1-162-871-91	s	CERAMIC 47PF 5% 50V
C572	1-131-351-00	s	TANTALUM 4.7uF 10% 35V
C605	1-164-245-11	s	CERAMIC, CHIP 0.015uF 10% 25V
C611	1-164-174-11	s	CERAMIC, CHIP 0.0082uF 10% 25V
C620	1-126-399-11	s	ELECT, CHIP 10uF 20% 35V
C624	1-164-172-11	s	CERAMIC, CHIP 0.0056uF 5% 25V
C627	1-164-227-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C632	1-162-958-11	s	CERAMIC, CHIP 270PF 5% 50V
C635	1-164-315-11	s	CERAMIC, CHIP 470PF 10% 50V
C636	1-164-315-11	s	CERAMIC, CHIP 470PF 10% 50V
C639	1-164-315-11	s	CERAMIC, CHIP 470PF 10% 50V
C655	1-164-245-11	s	CERAMIC, CHIP 0.015uF 10% 25V
C661	1-164-174-11	s	CERAMIC, CHIP 0.0082uF 10% 25V
C670	1-126-399-11	s	ELECT, CHIP 10uF 20% 35V
C674	1-164-172-11	s	CERAMIC, CHIP 0.0056uF 5% 25V
C677	1-164-227-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C682	1-162-958-11	s	CERAMIC, CHIP 270PF 5% 50V
C685	1-164-315-11	s	CERAMIC, CHIP 470PF 10% 50V
C686	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C689	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C703	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C704	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C705	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C706	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C708	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C710	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C713	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C719	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C751	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C754	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C756	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C757	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C759	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C761	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V

(AU-142P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C766	1-126-101-11	s	ELECT 100uF 20% 16V
C791	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C792	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C801	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C803	1-164-245-11	s	CERAMIC, CHIP 0.015uF 10% 25V
C804	1-164-315-11	s	CERAMIC, CHIP 470PF 10% 50V
C851	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C853	1-164-245-11	s	CERAMIC, CHIP 0.015uF 10% 25V
C855	1-164-315-11	s	CERAMIC, CHIP 470PF 10% 50V
C903	1-135-180-21	s	TANTALUM 33uF 10% 10V
C904	1-135-180-21	s	TANTALUM 33uF 10% 10V
C905	1-135-226-21	s	TANTALUM, CHIP 0.68uF 10% 16V
C906	1-135-226-21	s	TANTALUM, CHIP 0.68uF 10% 16V
C914	1-136-561-11	s	FILM 0.0068uF 5% 630V
C915	1-136-561-11	s	FILM 0.0068uF 5% 630V
C916	1-164-371-11	s	CERAMIC, CHIP 680PF 5% 500V
C918	1-164-371-11	s	CERAMIC, CHIP 680PF 5% 500V
C935	1-135-226-21	s	TANTALUM, CHIP 0.68uF 10% 16V
C937	1-164-371-11	s	CERAMIC, CHIP 680PF 5% 500V
C939	1-164-371-11	s	CERAMIC, CHIP 680PF 5% 500V
C991	1-124-478-11	s	ELECT 100uF 20% 25V
CN301	1-568-079-11	s	CONNECTOR, HINGE 20P, FEMALE
CN302	1-568-084-11	s	CONNECTOR, HINGE 30P, FEMALE
CN303	1-506-474-11	s	CONNECTOR 9P, MALE
CN311	1-506-471-11	s	CONNECTOR 6P, MALE
CN312	1-506-468-11	s	CONNECTOR 3P, MALE
D201	8-719-941-86	s	DIODE DAN202U
D251	8-719-941-86	s	DIODE DAN202U
D401	8-719-941-23	s	DIODE DA204U
D403	8-719-941-86	s	DIODE DAN202U
D451	8-719-941-23	s	DIODE DA204U
D502	8-719-941-09	s	DIODE DAP202U
D503	8-719-106-22	s	DIODE RD7.5M-B1
D504	8-719-941-09	s	DIODE DAP202U
D571	8-719-109-85	s	DIODE RD5.1ES-B2
D601	8-719-941-23	s	DIODE DA204U
D602	8-719-941-09	s	DIODE DAP202U
D603	8-719-941-86	s	DIODE DAN202U
D604	8-719-941-09	s	DIODE DAP202U
D651	8-719-941-23	s	DIODE DA204U
D701	8-719-941-86	s	DIODE DAN202U
D702	8-719-941-23	s	DIODE DA204U
D751	8-719-941-23	s	DIODE DA204U
D752	8-719-200-77	s	DIODE 10E2N
D753	8-719-941-23	s	DIODE DA204U
D871	8-719-105-72	s	DIODE RD4.7M-B1
D901	8-719-941-86	s	DIODE DAN202U
D902	8-719-941-09	s	DIODE DAP202U
D903	8-719-941-09	s	DIODE DAP202U
D904	8-719-941-09	s	DIODE DAP202U
D905	8-719-941-09	s	DIODE DAP202U
FL201	1-236-171-11	s	FILTER, LOW-PASS
FL601	1-236-003-11	s	FILTER, LOW-PASS
FL602	1-236-012-11	s	FILTER, BANDPASS 310KHz
FL652	1-236-013-11	s	FILTER, BANDPASS 540KHz
FL701	1-239-062-11	s	FILTER, LOW-PASS
FL702	1-236-015-11	s	FILTER, BANDPASS 540KHz

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.

(AU-142P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
IC201	8-759-906-54	s	IC TL064CNS
IC202	8-759-300-71	s	IC HD14053BFP
IC203	8-741-164-50	s	IC SBX1645-01
IC301	8-759-981-99	s	IC RC4560M
IC302	8-759-011-65	s	IC MC74HC4053F
IC303	8-759-234-77	s	IC TC4S66F
IC351	8-759-981-99	s	IC RC4560M
IC352	8-759-011-65	s	IC MC74HC4053F
IC353	8-759-234-77	s	IC TC4S66F
IC401	8-759-981-54	s	IC RC2041MD
IC402	8-759-906-53	s	IC TL062CPS
IC403	8-759-906-54	s	IC TL064CNS
IC501	---PENDING---	s	IC UPD75P008GB-3B4-MU
IC502	8-759-925-90	s	IC SN74HC74NS
IC503	8-759-512-71	s	IC S-8054HNM
IC503	8-759-920-28	s	IC S-8054HN
IC601	8-759-300-71	s	IC HD14053BFP
IC602	8-752-009-90	s	IC CX20099
IC603	8-759-403-92	s	IC AN6391NS
IC604	8-759-906-54	s	IC TL064CNS
IC605	8-759-983-69	s	IC LM358PS
IC653	8-759-403-92	s	IC AN6391NS
IC701	8-752-050-00	s	IC CX20111
IC702	8-759-906-53	s	IC TL062CPS
IC751	8-759-983-95	s	IC TL592BPS
IC801	8-759-981-54	s	IC RC2041MD
IC802	8-759-981-99	s	IC RC4560M
IC851	8-759-711-58	s	IC NJM78L05UA
IC852	8-759-711-58	s	IC NJM78L05UA
IC853	8-759-983-69	s	IC LM358PS
IC901	8-759-983-74	s	IC LM324NS
IC902	8-759-925-72	s	IC SN74HC02NS
IC903	8-759-925-76	s	IC SN74HC08NS
L601	1-410-941-21	s	INDUCTOR, CHIP 560UH
L602	1-412-282-41	s	INDUCTOR, CHIP 470UH
L603	1-410-064-11	s	INDUCTOR 2.7mH
L651	1-410-941-21	s	INDUCTOR, CHIP 560UH
L652	1-412-282-41	s	INDUCTOR, CHIP 470UH
L653	1-410-064-11	s	INDUCTOR 2.7mH
LV301	1-410-854-12	s	COIL, VAR 18mH
LV351	1-410-854-12	s	COIL, VAR 18mH
LV401	1-407-298-00	s	INDUCTOR, VAR 4.5mH
LV402	1-410-853-12	s	COIL, VAR 4.5mH
LV451	1-407-298-00	s	INDUCTOR, VAR 4.5mH
LV452	1-410-853-12	s	COIL, VAR 4.5mH
LV901	1-460-154-11	s	COIL, VAR 620UH
LV902	1-460-154-11	s	COIL, VAR 620UH
Q201	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q202	8-729-905-12	s	TRANSISTOR DTA144EU
Q203	8-729-905-12	s	TRANSISTOR DTA144EU
Q251	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q252	8-729-905-12	s	TRANSISTOR DTA144EU
Q253	8-729-905-12	s	TRANSISTOR DTA144EU
Q301	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q302	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q303	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q304	8-729-209-07	s	TRANSISTOR 2SC4213-B

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Ref. No. or Q'ty	Part No.	SP	Description
Q305	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q306	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q353	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q354	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q355	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q356	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q401	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q402	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q404	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q405	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q406	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q407	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q411	8-729-905-12	s	TRANSISTOR DTA144EU
Q412	8-729-905-18	s	TRANSISTOR DTC144EU
Q413	8-729-905-12	s	TRANSISTOR DTA144EU
Q414	8-729-905-18	s	TRANSISTOR DTC144EU
Q431	8-729-109-44	s	TRANSISTOR 2SK94
Q432	8-729-905-18	s	TRANSISTOR DTC144EU
Q433	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q434	8-729-905-12	s	TRANSISTOR DTA144EU
Q451	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q452	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q454	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q455	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q456	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q457	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q481	8-729-109-44	s	TRANSISTOR 2SK94
Q482	8-729-905-18	s	TRANSISTOR DTC144EU
Q483	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q501	8-729-905-12	s	TRANSISTOR DTA144EU
Q502	8-729-905-12	s	TRANSISTOR DTA144EU
Q503	8-729-905-12	s	TRANSISTOR DTA144EU
Q504	8-729-905-12	s	TRANSISTOR DTA144EU
Q505	8-729-905-12	s	TRANSISTOR DTA144EU
Q506	8-729-905-12	s	TRANSISTOR DTA144EU
Q507	8-729-905-12	s	TRANSISTOR DTA144EU
Q508	8-729-905-12	s	TRANSISTOR DTA144EU
Q509	8-729-905-12	s	TRANSISTOR DTA144EU
Q510	8-729-905-12	s	TRANSISTOR DTA144EU
Q511	8-729-905-12	s	TRANSISTOR DTA144EU
Q512	8-729-905-12	s	TRANSISTOR DTA144EU
Q513	8-729-905-12	s	TRANSISTOR DTA144EU
Q514	8-729-905-12	s	TRANSISTOR DTA144EU
Q515	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q516	8-729-905-18	s	TRANSISTOR DTC144EU
Q551	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q571	8-729-900-65	s	TRANSISTOR DTA144ES
Q601	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q602	8-729-905-12	s	TRANSISTOR DTA144EU
Q603	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q604	8-729-905-18	s	TRANSISTOR DTC144EU
Q605	8-729-905-18	s	TRANSISTOR DTC144EU
Q651	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q701	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q702	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q704	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q705	8-729-905-12	s	TRANSISTOR DTA144EU
Q706	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q707	8-729-117-31	s	TRANSISTOR 2SC4177-L5

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.

(AU-142P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q751	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q754	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q755	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q756	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q757	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q758	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q781	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q801	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q871	8-729-807-50	s	TRANSISTOR 2SD1623-R
Q875	8-729-101-07	s	TRANSISTOR 2SB798
Q876	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q879	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q880	8-729-807-50	s	TRANSISTOR 2SD1623-R
Q881	8-729-905-18	s	TRANSISTOR DTC144EU
Q901	8-729-905-18	s	TRANSISTOR DTC144EU
Q902	8-729-905-18	s	TRANSISTOR DTC144EU
Q903	8-729-143-63	s	TRANSISTOR 2SJ132
Q904	8-729-143-63	s	TRANSISTOR 2SJ132
Q905	8-729-143-63	s	TRANSISTOR 2SJ132
Q906	8-729-143-63	s	TRANSISTOR 2SJ132
Q907	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q908	8-729-212-02	s	TRANSISTOR 2SC2120-Y
Q909	8-729-212-02	s	TRANSISTOR 2SC2120-Y
Q910	8-729-212-02	s	TRANSISTOR 2SC2120-Y
Q911	8-729-212-02	s	TRANSISTOR 2SC2120-Y
Q912	8-729-159-64	s	TRANSISTOR 2SD596
Q913	8-729-159-64	s	TRANSISTOR 2SD596
Q915	8-729-905-12	s	TRANSISTOR DTA144EU
Q916	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q919	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q920	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q921	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q922	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q925	8-729-143-63	s	TRANSISTOR 2SJ132
Q926	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q927	8-729-159-64	s	TRANSISTOR 2SD596
Q928	8-729-159-64	s	TRANSISTOR 2SD596
Q929	8-729-209-07	s	TRANSISTOR 2SC4213-B
R213	1-218-272-11	s	METAL 5.1K 5% 1/16W
R263	1-218-272-11	s	METAL 5.1K 5% 1/16W
R571	1-249-417-11	s	CARBON 1K 5% 1/4W
R572	1-249-429-11	s	CARBON 10K 5% 1/4W
R625	1-218-739-11	s	METAL, CHIP 91K 0.5% 1/16W
R631	1-218-698-11	s	METAL, CHIP 1.8K 0.5% 1/16W
R646	1-249-420-11	s	CARBON 1.8K 5% 1/4W
R675	1-218-739-11	s	METAL, CHIP 91K 0.5% 1/16W
R679	1-218-290-11	s	METAL, CHIP 6.2K 5% 1/16W
R681	1-218-698-11	s	METAL, CHIP 1.8K 0.5% 1/16W
R696	1-249-420-11	s	CARBON 1.8K 5% 1/4W
R931	1-249-480-11	s	CARBON 3.30 5% 1/2W
R932	1-249-480-11	s	CARBON 3.30 5% 1/2W
R980	1-247-727-11	s	CARBON 10 5% 1/2W
R985	1-247-727-11	s	CARBON 10 5% 1/2W
RV301	1-237-035-11	s	RES, ADJ METAL 5K
RV302	1-237-035-11	s	RES, ADJ METAL 5K
RV303	1-237-036-11	s	RES, ADJ METAL 10K
RV304	1-237-036-11	s	RES, ADJ METAL 10K
RV305	1-237-037-11	s	RES, ADJ METAL 20K

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Ref. No. or Q'ty	Part No.	SP	Description
RV306	1-237-037-11	s	RES, ADJ METAL 20K
RV353	1-237-036-11	s	RES, ADJ METAL 10K
RV354	1-237-036-11	s	RES, ADJ METAL 10K
RV355	1-237-037-11	s	RES, ADJ METAL 20K
RV356	1-237-037-11	s	RES, ADJ METAL 20K
RV401	1-237-034-11	s	RES, ADJ METAL 2K
RV402	1-237-035-11	s	RES, ADJ METAL 5K
RV403	1-237-035-11	s	RES, ADJ METAL 5K
RV404	1-237-041-11	s	RES, ADJ METAL 500K
RV405	1-237-037-11	s	RES, ADJ METAL 20K
RV406	1-237-034-11	s	RES, ADJ METAL 2K
RV407	1-237-035-11	s	RES, ADJ METAL 5K
RV451	1-237-034-11	s	RES, ADJ METAL 2K
RV452	1-237-035-11	s	RES, ADJ METAL 5K
RV453	1-237-035-11	s	RES, ADJ METAL 5K
RV454	1-237-041-11	s	RES, ADJ METAL 500K
RV455	1-237-037-11	s	RES, ADJ METAL 20K
RV456	1-237-034-11	s	RES, ADJ METAL 2K
RV551	1-228-459-00	s	RES, ADJ METAL 10K
RV601	1-237-037-11	s	RES, ADJ METAL 20K
RV602	1-237-035-11	s	RES, ADJ METAL 5K
RV603	1-237-038-11	s	RES, ADJ METAL 50K
RV604	1-237-034-11	s	RES, ADJ METAL 2K
RV605	1-237-036-11	s	RES, ADJ METAL 10K
RV651	1-237-037-11	s	RES, ADJ METAL 20K
RV653	1-237-038-11	s	RES, ADJ METAL 50K
RV654	1-237-034-11	s	RES, ADJ METAL 2K
RV655	1-237-036-11	s	RES, ADJ METAL 10K
RV701	1-237-035-11	s	RES, ADJ METAL 5K
RV702	1-237-034-11	s	RES, ADJ METAL 2K
RV801	1-237-036-11	s	RES, ADJ METAL 10K
RV851	1-237-036-11	s	RES, ADJ METAL 10K
RV901	1-237-039-11	s	RES, ADJ METAL 100K
RV902	1-237-039-11	s	RES, ADJ METAL 100K
RV903	1-237-039-11	s	RES, ADJ METAL 100K
RV904	1-237-039-11	s	RES, ADJ METAL 100K
RV905	1-237-039-11	s	RES, ADJ METAL 100K
RV906	1-237-039-11	s	RES, ADJ METAL 100K
RV907	1-237-039-11	s	RES, ADJ METAL 100K
S201	1-553-906-00	s	SWITCH, SLIDE
S202	1-553-906-00	s	SWITCH, SLIDE
T901	1-424-511-11	s	TRANSFORMER, FE
T902	1-424-511-11	s	TRANSFORMER, FE
T903	1-433-326-11	s	TRANSFORMER, BIAS OSCILLATION
T904	1-433-326-11	s	TRANSFORMER, BIAS OSCILLATION
T905	1-433-326-11	s	TRANSFORMER, BIAS OSCILLATION
T906	1-433-326-11	s	TRANSFORMER, BIAS OSCILLATION
X501	1-567-160-21	s	RESONATOR, CERAMIC 4.19MHz

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.

BC-23 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-638-699-12	o	PRINTED CIRCUIT BOARD, BC-23
1pc	1-535-893-11	o	TAB, FASTON

CC-47 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6727-319-A	o	MOUNTED CIRCUIT BOARD, CC-47
C7	1-127-515-11	s	ALUMN SOLID 47uF 20% 10V
CN1	1-506-494-11	s	CONNECTOR 15P MALE
CN2	1-506-488-11	s	CONNECTOR 9P, MALE
CN3	1-564-877-21	s	CONNECTOR 15P, MALE
CN4	1-566-766-11	o	CONNECTOR 11P, MALE
CN5	1-566-766-11	o	CONNECTOR 11P, MALE
CN6	1-566-761-11	o	CONNECTOR 6P, MALE
CN7	1-566-759-11	o	CONNECTOR 4P, MALE
CN8	1-566-759-11	o	CONNECTOR 4P, MALE
D1	8-719-941-04	s	DIODE SB007-03CP
D2	8-719-941-04	s	DIODE SB007-03CP
D3	8-719-941-09	s	DIODE DAP202U
D4	8-719-941-09	s	DIODE DAP202U
D5	8-719-941-09	s	DIODE DAP202U
D6	8-719-941-04	s	DIODE SB007-03CP
D7	8-719-941-04	s	DIODE SB007-03CP
FB1	1-543-309-21	s	BEAD, FERRITE
FB2	1-543-309-21	s	BEAD, FERRITE
IC1	8-759-710-82	s	IC NJM2406F
IC2	8-759-710-82	s	IC NJM2406F
IC3	8-759-234-20	s	IC TC7S08F
IC4	8-759-035-93	s	IC SC7S32F
IC5	8-759-234-77	s	IC TC4S66F
IC6	8-759-030-16	s	IC MC34182M
IC7	8-759-710-82	s	IC NJM2406F
Q1	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q2	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q3	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q4	8-729-905-12	s	TRANSISTOR DTA144EU
Q5	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q6	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q8	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q9	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q10	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q11	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q12	8-729-905-12	s	TRANSISTOR DTA144EU
R1	1-216-625-11	s	METAL, CHIP 82 0.5% 1/10W
R2	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R3	1-216-625-11	s	METAL, CHIP 82 0.5% 1/10W
R4	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R5	1-216-295-00	s	METAL, CHIP 0-OHM
R6	1-216-295-00	s	METAL, CHIP 0-OHM
R7	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R8	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R17	1-216-017-00	s	METAL, CHIP 47 5% 1/10W
R18	1-216-013-00	s	METAL, CHIP 33 5% 1/10W
R46	1-218-344-11	s	METAL, CHIP 7.5K 0.50% 1/16W
R49	1-218-344-11	s	METAL, CHIP 7.5K 0.50% 1/16W
R53	1-218-272-11	s	METAL 5.1K 5% 1/16W
S1	1-570-845-11	s	SWITCH, SLIDE
S2	1-570-863-11	s	SWITCH, SLIDE
S3	1-571-275-11	s	SWITCH, SLIDE

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.

CON-18 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6754-268-A	o	MOUNTED CIRCUIT BOARD, CON-18
CN431	1-566-760-11	s	CONNECTOR 5P, MALE

CP-164 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6713-423-A	o	MOUNTED CIRCUIT BOARD, CP-164
C102	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C202	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C206	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C301	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C401	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C604	1-126-176-11	s	ELECT 220uF 20% 10V
C605	1-126-176-11	s	ELECT 220uF 20% 10V
C704	1-126-176-11	s	ELECT 220uF 20% 10V
C705	1-126-176-11	s	ELECT 220uF 20% 10V
C771	1-126-101-11	s	ELECT 100uF 20% 16V
C772	1-126-101-11	s	ELECT 100uF 20% 16V
C781	1-131-352-00	s	TANTALUM 6.8uF 10% 35V
C804	1-126-176-11	s	ELECT 220uF 20% 10V
C805	1-126-176-11	s	ELECT 220uF 20% 10V
C904	1-126-176-11	s	ELECT 220uF 20% 10V
C905	1-126-176-11	s	ELECT 220uF 20% 10V
C2001	1-127-513-00	s	ALUMN SOLID 15uF 20% 25V
C2003	1-135-213-21	s	TANTALUM, CHIP 3.3uF 20% 25V
CN401	1-580-716-11	o	CONNECTOR 13P, MALE
CN404	1-565-875-11	o	CONNECTOR 3P, MALE
CN405	1-565-875-11	o	CONNECTOR 3P, MALE
CN406	1-565-875-11	o	CONNECTOR 3P, MALE
CN407	1-565-875-11	o	CONNECTOR 3P, MALE
CN408	1-506-482-11	s	CONNECTOR 3P, MALE
CN409	1-566-759-11	o	CONNECTOR 4P, MALE
CN410	1-566-767-11	o	CONNECTOR 12P, MALE
CN411	1-566-759-11	o	CONNECTOR 4P, MALE
CN412	1-565-875-11	o	CONNECTOR 3P, MALE
CN413	1-565-875-11	o	CONNECTOR 3P, MALE
CN415	1-565-880-11	s	CONNECTOR 8P, MALE
CN416	1-565-875-11	o	CONNECTOR 3P, MALE
CN417	1-565-875-11	o	CONNECTOR 3P, MALE
CN1009	1-537-142-11	s	TERMINAL
D101	8-719-941-23	s	DIODE DA204U
D102	8-719-941-23	s	DIODE DA204U
D201	8-719-941-23	s	DIODE DA204U
D202	8-719-941-23	s	DIODE DA204U
D301	8-719-941-23	s	DIODE DA204U
D302	8-719-941-23	s	DIODE DA204U
D401	8-719-941-23	s	DIODE DA204U
D402	8-719-941-23	s	DIODE DA204U
D601	8-719-941-86	s	DIODE DAN202U
D602	8-719-941-86	s	DIODE DAN202U
D801	8-719-941-86	s	DIODE DAN202U
D802	8-719-941-86	s	DIODE DAN202U
IC101	8-759-981-54	s	IC RC2041MD
IC102	8-759-981-54	s	IC RC2041MD
IC201	8-759-981-54	s	IC RC2041MD
IC203	8-759-981-54	s	IC RC2041MD
IC301	8-759-981-54	s	IC RC2041MD
IC302	8-759-981-54	s	IC RC2041MD
IC401	8-759-981-54	s	IC RC2041MD
IC551	8-759-981-99	s	IC RC4560M
IC568	8-759-512-09	s	IC NJM386BM
IC569	8-759-512-09	s	IC NJM386BM
IC601	8-759-982-04	s	IC RC5532M

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.

(CP-164 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
IC651	8-759-300-71	s	IC HD14053BFP
IC652	8-759-906-53	s	IC TL062CPS
IC655	8-759-937-54	s	IC S-81250HG-RD-S
IC656	8-759-633-55	s	IC M5222FP
IC657	8-759-633-55	s	IC M5222FP
IC658	8-759-981-75	s	IC RC3403AM
IC701	8-759-982-04	s	IC RC5532M
IC801	8-759-700-96	s	IC NJM5534M
IC802	8-759-700-96	s	IC NJM5534M
IC901	8-759-700-96	s	IC NJM5534M
IC902	8-759-700-96	s	IC NJM5534M
L101	1-410-380-31	s	INDUCTOR, CHIP 8.2uH
L102	1-410-380-31	s	INDUCTOR, CHIP 8.2uH
L201	1-410-380-31	s	INDUCTOR, CHIP 8.2uH
L202	1-410-380-31	s	INDUCTOR, CHIP 8.2uH
L203	1-410-380-31	s	INDUCTOR, CHIP 8.2uH
L204	1-410-380-31	s	INDUCTOR, CHIP 8.2uH
L301	1-410-380-31	s	INDUCTOR, CHIP 8.2uH
L302	1-410-380-31	s	INDUCTOR, CHIP 8.2uH
L401	1-410-380-31	s	INDUCTOR, CHIP 8.2uH
L402	1-410-380-31	s	INDUCTOR, CHIP 8.2uH
Q101	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q401	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q402	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q601	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q602	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q701	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q702	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q753	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q754	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q801	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q802	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q901	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q902	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q1001	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q1002	8-729-101-07	s	TRANSISTOR 2SB798
Q2001	8-729-807-50	s	TRANSISTOR 2SD1623-R
R102	1-218-698-11	s	METAL, CHIP 1.8K 0.50% 1/16W
R103	1-218-698-11	s	METAL, CHIP 1.8K 0.50% 1/16W
R202	1-218-698-11	s	METAL, CHIP 1.8K 0.50% 1/16W
R203	1-218-698-11	s	METAL, CHIP 1.8K 0.50% 1/16W
R301	1-218-698-11	s	METAL, CHIP 1.8K 0.50% 1/16W
R302	1-218-698-11	s	METAL, CHIP 1.8K 0.50% 1/16W
R401	1-218-698-11	s	METAL, CHIP 1.8K 0.50% 1/16W
R402	1-218-698-11	s	METAL, CHIP 1.8K 0.50% 1/16W
R758	1-216-993-11	s	METAL, CHIP 2.4K 5% 1/16W
R782	1-216-993-11	s	METAL, CHIP 2.4K 5% 1/16W
R783	1-218-293-11	s	METAL, CHIP 24K 5% 1/16W
R792	1-249-417-11	s	CARBON 1K 5% 1/4W
RV751	1-237-036-11	s	RES, ADJ METAL 10K
S401	1-570-863-11	s	SWITCH, SLIDE
S402	1-570-863-11	s	SWITCH, SLIDE
S403	1-570-863-11	s	SWITCH, SLIDE
S404	1-570-853-11	s	SWITCH, SLIDE
S405	1-570-863-11	s	SWITCH, SLIDE
S406	1-570-863-11	s	SWITCH, SLIDE

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.

(CP-164 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
S407	1-570-863-11	s	SWITCH, SLIDE
S408	1-570-863-11	s	SWITCH, SLIDE
S409	1-570-835-11	s	SWITCH, SLIDE
S410	1-570-845-11	s	SWITCH, SLIDE
S411	1-570-845-11	s	SWITCH, SLIDE
S412	1-570-863-11	s	SWITCH, SLIDE
S413	1-570-863-11	s	SWITCH, SLIDE
S414	1-570-863-11	s	SWITCH, SLIDE
S415	1-570-863-11	s	SWITCH, SLIDE
S416	1-571-217-11	s	SWITCH, SLIDE
S417	1-571-217-11	s	SWITCH, SLIDE
S418	1-571-217-11	s	SWITCH, SLIDE
S419	1-571-217-11	s	SWITCH, SLIDE
S420	1-571-087-11	s	SWITCH, SLIDE
S421	1-571-087-11	s	SWITCH, SLIDE
S422	1-571-087-11	s	SWITCH, SLIDE
S423	1-571-087-11	s	SWITCH, SLIDE
S424	1-570-835-11	s	SWITCH, SLIDE

CS-25 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-638-701-12	o	PRINTED CIRCUIT BOARD, CS-25
CN1	1-506-482-11	s	CONNECTOR 3P, MALE
PD3	8-719-939-05	s	PHOTOINTERRUPTER GP-1S54
R4	1-249-415-11	s	CARBON 680 5% 1/4W
R5	1-249-437-11	s	CARBON 47K 5% 1/4W

CS-26 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-564-831-11	o	CONTACT, FEMALE
1pc	1-569-193-11	o	CONTACT, FEMALE
1pc	1-638-702-11	o	PRINTED CIRCUIT BOARD, CS-26
CN2	1-506-482-11	s	CONNECTOR 3P, MALE
CN957	1-569-200-21	o	HOUSING, 7P
PD1	8-719-939-05	s	PHOTOINTERRUPTER GP-1S54
PD2	8-719-939-05	s	PHOTOINTERRUPTER GP-1S54
R1	1-249-413-11	s	CARBON 470 5% 1/4W
R2	1-249-437-11	s	CARBON 47K 5% 1/4W
R3	1-249-437-11	s	CARBON 47K 5% 1/4W

DC-52 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6754-270-A	o	MOUNTED CIRCUIT BOARD, DC-52

DET-15 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-638-705-11	o	PRINTED CIRCUIT BOARD, DET-15
CN1	1-506-482-11	s	CONNECTOR 3P, MALE
PD1	8-719-939-05	s	PHOTOINTERRUPTER GP-1S54
R1	1-249-409-11	s	CARBON 220 5% 1/4W
R2	1-249-425-11	s	CARBON 4.7K 5% 1/4W

DR-63 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
All of the component parts on the DR-63 Board are supplied together with when you order Drum Motor Ass'y.			
C1	1-161-021-11	s	CERAMIC 0.047uF 10% 25V
C2	1-161-021-11	s	CERAMIC 0.047uF 10% 25V
C3	1-161-039-00	s	CERAMIC 0.001uF 10% 50V

DUS-339 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6754-269-A	o	MOUNTED CIRCUIT BOARD, DUS-339
CN432	1-566-759-11	o	CONNECTOR 4P, MALE
Q1	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q2	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q3	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q4	8-729-209-07	s	TRANSISTOR 2SC4213-B

FE-11 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-638-696-12	o	PRINTED CIRCUIT BOARD, FE-11
C1	1-136-562-11	s	FILM 0.0082uF 5% 630V
Q1	8-729-159-64	s	TRANSISTOR 2SD596
Q2	8-729-159-64	s	TRANSISTOR 2SD596
R1	1-249-385-11	s	CARBON 2.2 5% 1/4W
T1	1-424-511-11	s	TRANSFORMER, FE

FU-52 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6754-271-B	o	MOUNTED CIRCUIT BOARD, FU-52
C1	1-127-519-11	s	ALUMN SOLID 100uF 20% 20V
CN441	1-535-894-11	o	TAB, FASTON
CN442	1-535-894-11	o	TAB, FASTON
CN443	1-506-469-11	s	CONNECTOR 4P, MALE
CN444	1-506-469-11	s	CONNECTOR 4P, MALE
F1	1-533-189-11	o	HOLDER, FUSE
F2	1-533-189-11	o	HOLDER, FUSE
F3	1-533-189-11	o	HOLDER, FUSE
F4	1-533-189-11	o	HOLDER, FUSE
Q1	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q2	8-729-101-07	s	TRANSISTOR 2SB798

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.

KY-207 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6717-611-A	o	MOUNTED CIRCUIT BOARD, KY-207
1pc	3-169-546-02	o	HOLDER, LCD
C104	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
CN501	1-506-473-11	s	CONNECTOR 8P, MALE
CN502	1-506-472-11	o	CONNECTOR 7P, MALE
CN503	1-506-472-11	o	CONNECTOR 7P, MALE
CN504	1-506-471-11	s	CONNECTOR 6P, MALE
CN505	1-506-468-11	s	CONNECTOR 3P, MALE
CN506	1-506-468-11	s	CONNECTOR 3P, MALE
CN507	1-506-468-11	s	CONNECTOR 3P, MALE
CN508	1-506-468-11	s	CONNECTOR 3P, MALE
CN509	1-506-468-11	s	CONNECTOR 3P, MALE
D101	8-719-945-13	s	LED SLH-34YC3F, YEL
D102	8-719-945-13	s	LED SLH-34YC3F, YEL
D104	8-719-945-13	s	LED SLH-34YC3F, YEL
D105	8-719-945-13	s	LED SLH-34YC3F, YEL
D106	8-719-945-13	s	LED SLH-34YC3F, YEL
D107	8-719-945-13	s	LED SLH-34YC3F, YEL
D109	8-719-945-13	s	LED SLH-34YC3F, YEL
D110	8-719-945-13	s	LED SLH-34YC3F, YEL
D111	8-719-941-23	s	DIODE DA204U
D112	8-719-109-51	s	DIODE RD2.0ES-B2
D113	8-719-915-45	s	LED SLP162B, RED
D114	8-719-915-45	s	LED SLP162B, RED
D115	8-719-955-05	s	LED BR5505S, RED
D116	8-719-902-27	s	LED EBR3402S, RED
D117	8-719-915-45	s	LED SLP162B, RED
D118	8-719-915-45	s	LED SLP162B, RED
D119	8-719-902-27	s	LED EBR3402S, RED
D120	8-719-902-27	s	LED EBR3402S, RED
D121	8-719-915-45	s	LED SLP162B, RED
D122	8-719-941-09	s	DIODE DAP202U
D123	8-719-941-09	s	DIODE DAP202U
D124	8-719-941-09	s	DIODE DAP202U
D125	8-719-941-09	s	DIODE DAP202U
D126	8-719-941-09	s	DIODE DAP202U
D127	8-719-941-09	s	DIODE DAP202U
D128	8-719-941-09	s	DIODE DAP202U
D129	8-719-941-09	s	DIODE DAP202U
D130	8-719-941-09	s	DIODE DAP202U
D131	8-719-941-09	s	DIODE DAP202U
D132	8-719-941-09	s	DIODE DAP202U
D133	8-719-941-09	s	DIODE DAP202U
D134	8-719-941-09	s	DIODE DAP202U
D135	8-719-941-09	s	DIODE DAP202U
D136	8-719-941-09	s	DIODE DAP202U
D137	8-719-941-09	s	DIODE DAP202U
D150	1-809-346-11	s	LED, BACK LIGHT
D151	1-809-346-11	s	LED, BACK LIGHT
D152	1-809-346-11	s	LED, BACK LIGHT
D153	1-809-346-11	s	LED, BACK LIGHT
D154	1-809-346-11	s	LED, BACK LIGHT
D155	1-809-346-11	s	LED, BACK LIGHT
D201	8-719-941-23	s	DIODE DA204U
D202	8-719-941-23	s	DIODE DA204U
IC102	8-759-941-24	s	IC MSM5265GS-K
IC105	8-759-932-10	s	IC MB88306PF

(KY-207 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
IC106	8-759-932-10	s	IC MB88306PF
IC201	8-759-981-99	s	IC RC4560M
IC202	8-759-939-41	s	IC S-81230AG-RB
IC203	8-759-300-71	s	IC HD14053BFP
IC204	8-759-300-71	s	IC HD14053BFP
IC205	8-759-239-58	s	IC TC74HC221AF
IC206	8-759-983-74	s	IC LM324NS
ND101	1-809-345-11	s	UNIT, LCD
Q101	8-729-116-42	s	TRANSISTOR 2SD1164-L
Q201	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q202	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q203	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q204	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q205	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q206	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q207	8-729-905-18	s	TRANSISTOR DTC144EU
Q208	8-729-905-18	s	TRANSISTOR DTC144EU
Q209	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
R204	1-218-349-11	s	METAL, CHIP 240K 5% 1/16W
RV201	1-237-040-11	s	RES, ADJ METAL 200K
RV202	1-237-035-11	s	RES, ADJ METAL 5K
RV203	1-237-035-11	s	RES, ADJ METAL 5K
RV204	1-237-035-11	s	RES, ADJ METAL 5K
RV205	1-237-035-11	s	RES, ADJ METAL 5K
RV206	1-237-036-11	s	RES, ADJ METAL 10K
RV207	1-237-036-11	s	RES, ADJ METAL 10K
RV208	1-237-036-11	s	RES, ADJ METAL 10K
RV209	1-237-036-11	s	RES, ADJ METAL 10K
RV210	1-237-041-11	s	RES, ADJ METAL 500K
S101	1-570-851-11	s	SWITCH, SLIDE
S102	1-570-724-11	s	SWITCH, SLIDE
S103	1-570-854-11	s	SWITCH, SLIDE
S104	1-553-977-00	s	SWITCH, SLIDE
S105	1-572-725-11	s	SWITCH, PUSH
S106	1-572-725-11	s	SWITCH, PUSH
S107	1-572-725-11	s	SWITCH, PUSH
S108	1-554-377-21	s	SWITCH, SLIDE
S109	1-553-977-00	s	SWITCH, SLIDE
S110	1-570-337-11	s	SWITCH, DIGITAL
S111	1-570-337-11	s	SWITCH, DIGITAL
S112	1-572-725-11	s	SWITCH, PUSH
S113	1-572-725-11	s	SWITCH, PUSH
S114	1-570-724-11	s	SWITCH, SLIDE
S115	1-553-977-00	s	SWITCH, SLIDE
S116	1-572-725-11	s	SWITCH, PUSH
S117	1-572-725-11	s	SWITCH, PUSH
S118	1-572-725-11	s	SWITCH, PUSH
S119	1-572-725-11	s	SWITCH, PUSH
S120	1-553-977-00	s	SWITCH, SLIDE
S121	1-572-725-11	s	SWITCH, PUSH
S122	1-572-725-11	s	SWITCH, PUSH
S123	1-572-725-11	s	SWITCH, PUSH
S124	1-572-725-11	s	SWITCH, PUSH
S125	1-553-977-00	s	SWITCH, SLIDE
S201	1-570-859-11	s	SWITCH, SLIDE
S202	1-570-859-11	s	SWITCH, SLIDE
S203	1-572-725-11	s	SWITCH, PUSH

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.

MB-335 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6755-107-A	o	MOUNTED CIRCUIT BOARD, MB-335
C1	1-127-519-11	s	ALUMN SOLID 100uF 20% 20V
C2	1-127-519-11	s	ALUMN SOLID 100uF 20% 20V
CN901	1-568-098-11	o	CONNECTOR, HINGE 30P, MALE
CN902	1-568-098-11	o	CONNECTOR, HINGE 30P, MALE
CN903	1-568-098-11	o	CONNECTOR, HINGE 30P, MALE
CN904	1-568-098-11	o	CONNECTOR, HINGE 30P, MALE
CN905	1-568-098-11	o	CONNECTOR, HINGE 30P, MALE
CN915	1-568-098-11	o	CONNECTOR, HINGE 30P, MALE
CN916	1-568-098-11	o	CONNECTOR, HINGE 30P, MALE
CN921	1-568-093-11	s	CONNECTOR, HINGE 20P, MALE
CN922	1-568-098-11	o	CONNECTOR, HINGE 30P, MALE
CN923	1-569-335-11	s	CONNECTOR, BB 9P, MALE
CN924	1-566-760-11	s	CONNECTOR 5P, MALE
CN925	1-566-761-11	o	CONNECTOR 6P, MALE
CN926	1-566-763-11	o	CONNECTOR 8P, MALE
CN927	1-566-764-11	o	CONNECTOR 9P, MALE
CN928	1-580-716-11	o	CONNECTOR 13P, MALE
CN929	1-566-759-11	o	CONNECTOR 4P, MALE
CN930	1-566-758-11	o	CONNECTOR 3P, MALE
CN940	1-506-467-11	s	CONNECTOR 2P, MALE
CN941	1-506-468-11	s	CONNECTOR 3P, MALE
CN942	1-506-468-11	s	CONNECTOR 3P, MALE
CN943	1-506-467-11	s	CONNECTOR 2P, MALE
CN944	1-506-467-11	s	CONNECTOR 2P, MALE
CN945	1-506-468-11	s	CONNECTOR 3P, MALE
CN946	1-506-467-11	s	CONNECTOR 2P, MALE
CN947	1-566-764-11	o	CONNECTOR 9P, MALE
CN948	1-506-469-11	s	CONNECTOR 4P, MALE
CN949	1-506-472-11	o	CONNECTOR 7P, MALE
CN950	1-506-473-11	s	CONNECTOR 8P, MALE
CN951	1-506-467-11	s	CONNECTOR 2P, MALE
CN952	1-506-468-11	s	CONNECTOR 3P, MALE
CN953	1-506-468-11	s	CONNECTOR 3P, MALE
CN954	1-506-469-11	s	CONNECTOR 4P, MALE
CN955	1-506-468-11	s	CONNECTOR 3P, MALE
CN956	1-506-468-11	s	CONNECTOR 3P, MALE
CN957	1-506-472-11	o	CONNECTOR 7P, MALE
CN958	1-506-467-11	s	CONNECTOR 2P, MALE
CN959	1-506-467-11	s	CONNECTOR 2P, MALE
CN961	1-566-761-11	o	CONNECTOR 6P, MALE
CN962	1-566-762-11	o	CONNECTOR 7P, MALE
CN965	1-566-568-11	o	CONNECTOR 40P, FEMALE
CN970	1-506-469-11	s	CONNECTOR 4P, MALE
CN971	1-506-472-11	s	CONNECTOR 7P, MALE
CN1001	1-535-894-11	o	TAB, FASTON
CN1002	1-535-894-11	o	TAB, FASTON

PSW-12 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
C101	1-124-478-11	s	ELECT 100uF 20% 25V
C102	1-124-563-11	s	ELECT 2200 20% 25V
C106	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C108	1-127-513-00	s	ALUMN SOLID 15uF 20% 25V
C109	1-127-515-11	s	ALUMN SOLID 47uF 20% 10V
C110	1-124-762-00	s	ELECT 4700 20% 10V
C112	1-124-907-11	s	ELECT 10uF 20% 50V
C116	1-127-519-11	s	ALUMN SOLID 100uF 20% 20V
C117	1-127-515-11	s	ALUMN SOLID 47uF 20% 10V
C118	1-124-890-11	s	ELECT 6800uF 20% 6.3
C120	1-124-443-00	s	ELECT 100uF 20% 10V
C126	1-127-515-11	s	ALUMN SOLID 47uF 20% 10V
C128	1-124-762-00	s	ELECT 4700 20% 10V
C129	1-124-907-11	s	ELECT 10uF 20% 50V
C133	1-127-519-11	s	ALUMN SOLID 100uF 20% 20V
C134	1-127-515-11	s	ALUMN SOLID 47uF 20% 10V
C135	1-124-890-11	s	ELECT 6800uF 20% 6.3
C137	1-126-233-11	s	ELECT 22uF 20% 50V
C142	1-124-914-51	s	ELECT 4.7uF 20% 63V
C143	1-124-914-51	s	ELECT 4.7uF 20% 63V
C144	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C149	1-127-513-00	s	ALUMN SOLID 15uF 20% 25V
C150	1-127-513-00	s	ALUMN SOLID 15uF 20% 25V
C161	1-164-361-11	s	CERAMIC 0.047uF 16V
CN601	1-506-469-11	s	CONNECTOR 4P, MALE
CN602	1-535-894-11	o	TAB, FASTON
CN603	1-566-566-11	o	CONNECTOR 40P, MALE
D102	8-719-981-38	s	DIODE ERC62M-004
D103	8-719-941-09	s	DIODE DAP202U
D104	8-719-975-85	s	DIODE ERB83-004
D105	8-719-981-38	s	DIODE ERC62M-004
D106	8-719-975-85	s	DIODE ERB83-004
D107	8-719-975-85	s	DIODE ERB83-004
D108	8-719-901-83	s	DIODE 1SS83
F101	1-532-605-00	s	LINK, IC 0.4A
IC101	8-759-927-99	s	IC MB3761PF
IC102	8-759-937-36	s	IC TL1451ACNS
IC103	8-759-937-36	s	IC TL1451ACNS
IC104	8-759-937-36	s	IC TL1451ACNS
L101	1-424-316-11	s	COIL, CHOKE 150UH
L102	1-424-517-11	s	COIL, CHOKE 200UH
L103	1-424-517-11	s	COIL, CHOKE 200UH
L104	1-424-517-11	s	COIL, CHOKE 200UH
L105	1-421-459-00	s	COIL, CHOKE
L106	1-421-459-00	s	COIL, CHOKE
L107	1-421-459-00	s	COIL, CHOKE
L108	1-421-459-00	s	COIL, CHOKE
L109	1-421-459-00	s	COIL, CHOKE
Q101	8-729-321-78	s	TRANSISTOR 2SJ176
Q102	8-729-321-78	s	TRANSISTOR 2SJ176
Q103	8-729-905-18	s	TRANSISTOR DTC144EU
Q104	8-729-905-12	s	TRANSISTOR DTA144EU
Q105	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q106	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q107	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q108	8-729-143-63	s	TRANSISTOR 2SJ132

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.

(PSW-12 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q109	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q110	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q111	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q112	8-729-321-78	s	TRANSISTOR 2SJ176
Q113	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q114	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q115	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q116	8-729-143-63	s	TRANSISTOR 2SJ132
Q117	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q118	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q119	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q120	8-729-321-78	s	TRANSISTOR 2SJ176
Q121	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q122	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q123	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q124	8-729-143-63	s	TRANSISTOR 2SJ132
Q125	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q126	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q127	8-729-905-18	s	TRANSISTOR DTC144EU
Q128	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q129	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q130	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q131	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q132	8-729-117-31	s	TRANSISTOR 2SC4177-L5
R113	1-216-343-00	s	METAL 0.33 5% 1W
R127	1-216-345-11	s	METAL 0.47 5% 1W
R153	1-216-343-00	s	METAL 0.33 5% 1W
R166	1-216-345-11	s	METAL 0.47 5% 1W
R172	1-215-857-11	s	METAL 10 5% 1W
R173	1-216-343-00	s	METAL 0.33 5% 1W
R174	1-216-341-11	s	METAL 0.22 5% 1W
R175	1-216-341-11	s	METAL 0.22 5% 1W
R179	1-218-293-11	s	METAL, CHIP 24K 5% 1/16W
R203	1-216-345-11	s	METAL 0.47 5% 1W
RV100	1-237-036-11	s	RES, ADJ METAL 10K
RV101	1-237-034-11	s	RES, ADJ METAL 2K
RV102	1-237-034-11	s	RES, ADJ METAL 2K
RV103	1-237-034-11	s	RES, ADJ METAL 2K
RV104	1-237-033-11	s	RES, ADJ METAL 1K
RV105	1-237-034-11	s	RES, ADJ METAL 2K
T101	1-450-514-11	s	TRANSFORMER, CONVERTER
TH101	1-809-308-21	s	THERMISTOR, CHIP 3.3K
TH102	1-809-308-21	s	THERMISTOR, CHIP 3.3K
TH103	1-809-308-21	s	THERMISTOR, CHIP 3.3K
TH104	1-809-308-21	s	THERMISTOR, CHIP 3.3K
TH105	1-809-308-21	s	THERMISTOR, CHIP 3.3K

SE-158 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6717-612-A	o	MOUNTED CIRCUIT BOARD, SE-158
IC1	8-759-009-06	s	IC MC14052BF
S1	1-572-719-11	s	SWITCH, PUSH
S2	1-572-719-11	s	SWITCH, PUSH
S3	1-572-719-11	s	SWITCH, PUSH
S4	1-572-719-11	s	SWITCH, PUSH
S5	1-571-754-11	s	SWITCH, PUSH
S6	1-571-754-11	s	SWITCH, PUSH
S7	1-572-719-11	s	SWITCH, PUSH
S8	1-572-719-11	s	SWITCH, PUSH
S9	1-572-719-11	s	SWITCH, PUSH

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.

SST-1P BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6715-452-A	o	MOUNTED CIRCUIT BOARD, SST-1P
BT200	1-528-291-11	o	BATTERY, LITHIUM
C10	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C11	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C12	1-164-146-11	s	CERAMIC, CHIP 0.0033uF 10% 50V
C13	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C15	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C16	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C17	1-164-146-11	s	CERAMIC, CHIP 0.0033uF 10% 50V
C18	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C30	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C32	1-124-120-11	s	ELECT 220uF 20% 25V
C34	1-164-315-11	s	CERAMIC, CHIP 470PF 10% 50V
C36	1-127-515-11	s	ALUMN SOLID 47uF 20% 10V
C42	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C202	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C203	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C204	1-164-245-11	s	CERAMIC, CHIP 0.015uF 10% 25V
C210	1-124-472-11	s	ELECT 470uF 20% 10V
C215	1-124-471-00	s	ELECT 1000uF 20% 6.3V
C225	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C501	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C503	1-164-227-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C511	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C515	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C516	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C517	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C521	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C527	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C528	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C533	1-164-227-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C534	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C544	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C547	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C549	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C550	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C551	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C552	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C553	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C554	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C555	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C556	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C557	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C558	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C559	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C560	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C561	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C562	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C563	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C564	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C565	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C566	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C567	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C568	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C570	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C571	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C572	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.

(SST-1P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C573	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C574	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C575	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C577	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C588	1-164-245-11	s	CERAMIC, CHIP 0.015uF 10% 25V
C589	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C590	1-164-245-11	s	CERAMIC, CHIP 0.015uF 10% 25V
C592	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C600	1-126-017-11	s	ELECT 6800uF 20% 16V
C605	1-124-477-11	s	ELECT 47uF 20% 25V
C606	1-124-477-11	s	ELECT 47uF 20% 25V
C609	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C610	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C611	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C615	1-126-103-11	s	ELECT 470uF 20% 16V
C617	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C618	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C621	1-126-103-11	s	ELECT 470uF 20% 16V
C623	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C624	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C638	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C639	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C640	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C641	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C642	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C643	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C644	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C645	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C646	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C648	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
C649	1-164-361-11	s	CERAMIC, CHIP 0.047uF 16V
CN1	1-568-084-11	s	CONNECTOR, HINGE 30P, FEMALE
CN2	1-568-084-11	s	CONNECTOR, HINGE 30P, FEMALE
CN3	1-568-084-11	s	CONNECTOR, HINGE 30P, FEMALE
CN4	1-568-084-11	s	CONNECTOR, HINGE 30P, FEMALE
CN5	1-568-084-11	s	CONNECTOR, HINGE 30P, FEMALE
CN6	1-506-469-11	s	CONNECTOR 4P, MALE
CN7	1-506-474-11	s	CONNECTOR 9P, MALE
CN8	1-506-470-11	s	CONNECTOR 5P, MALE
CN9	1-506-470-11	s	CONNECTOR 5P, MALE
CNI6	1-540-069-11	s	SOCKET, IC 84P
CNI520	1-526-652-21	s	SOCKET, IC 8P
CNI527	1-540-197-11	o	SOCKET, IC 32P
CV200	1-141-331-11	s	CAP, TRIMMER, CHIP 30PF
CV201	1-141-331-11	s	CAP, TRIMMER, CHIP 30PF
D1	8-719-941-86	s	DIODE DAN202U
D2	8-719-902-27	s	LED EBR3402S, RED
D3	8-719-913-44	s	DIODE ERA82-004
D4	8-719-913-44	s	DIODE ERA82-004
D5	8-719-913-44	s	DIODE ERA82-004
D6	8-719-913-44	s	DIODE ERA82-004
D7	8-719-941-86	s	DIODE DAN202U
D8	8-719-913-44	s	DIODE ERA82-004
D10	8-719-975-85	s	DIODE ERB83-004
D11	8-719-106-62	s	DIODE RD11M-B2
D12	8-719-941-09	s	DIODE DAP202U
D200	8-719-941-23	s	DIODE DA204U

(SST-1P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
D201	8-719-941-23	s	DIODE DA204U
D202	8-719-941-23	s	DIODE DA204U
D203	8-719-941-23	s	DIODE DA204U
D204	8-719-941-23	s	DIODE DA204U
D205	8-719-941-86	s	DIODE DAN202U
D206	8-719-913-44	s	DIODE ERA82-004
D207	8-719-941-86	s	DIODE DAN202U
D208	8-719-902-27	s	LED EBR3402S, RED
D502	8-719-941-86	s	DIODE DAN202U
D504	8-719-941-86	s	DIODE DAN202U
D505	8-719-941-86	s	DIODE DAN202U
D506	8-719-941-86	s	DIODE DAN202U
D509	8-719-941-23	s	DIODE DA204U
D512	8-719-902-27	s	LED EBR3402S, RED
D600	8-719-975-85	s	DIODE ERB83-004
D601	8-719-975-85	s	DIODE ERB83-004
D603	8-719-975-85	s	DIODE ERB83-004
D605	8-719-941-23	s	DIODE DA204U
D606	8-719-941-86	s	DIODE DAN202U
D607	8-719-975-85	s	DIODE ERB83-004
D608	8-719-941-23	s	DIODE DA204U
D609	8-719-975-85	s	DIODE ERB83-004
D610	8-719-941-86	s	DIODE DAN202U
D613	8-719-941-09	s	DIODE DAP202U
D614	8-719-941-09	s	DIODE DAP202U
D616	8-719-913-44	s	DIODE ERA82-004
D617	8-719-913-44	s	DIODE ERA82-004
D618	8-719-913-44	s	DIODE ERA82-004
D619	8-719-913-44	s	DIODE ERA82-004
D620	8-719-913-44	s	DIODE ERA82-004
D621	8-719-913-44	s	DIODE ERA82-004
D900	8-719-913-37	s	DIODE GP-1A06
D901	8-719-913-37	s	DIODE GP-1A06
FB1	1-543-309-21	s	BEAD, FERRITE
FB2	1-543-309-21	s	BEAD, FERRITE
FB3	1-543-309-21	s	BEAD, FERRITE
FB600	1-543-309-21	s	BEAD, FERRITE
IC1	8-759-105-49	s	IC UPC319G2
IC2	8-759-233-64	s	IC TC74HCU04AF
IC3	8-759-941-38	s	IC BA6229U3
IC4	8-759-805-32	s	IC LA7205M
IC5	8-759-805-32	s	IC LA7205M
IC6	--PENDING---	s	IC HD6475328CP10
IC7	8-759-938-68	s	IC CXD1095Q
IC8	8-759-938-68	s	IC CXD1095Q
IC9	8-759-999-19	s	IC MB88323A-PF-K2
IC10	8-759-937-36	s	IC TL1451ACNS
IC11	8-759-512-71	s	IC S-8054HNM
IC12	1-808-506-12	s	SENSOR, CONDENSATION
IC13	8-759-941-78	s	IC S-8053ALB
IC200	8-759-011-65	s	IC MC74HC4053F
IC201	8-759-981-54	s	IC RC2041MD
IC202	8-759-981-65	s	IC LM2903M
IC203	8-759-981-65	s	IC LM2903M
IC204	8-759-011-65	s	IC MC74HC4053F
IC205	8-759-981-78	s	IC RC3404AM
IC206	8-759-035-93	s	IC SC7S32F
IC207	8-759-209-54	s	IC TC4S01F

(SST-1P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
IC208	8-759-927-46	s	IC SN74HC00NS
IC209	8-759-008-82	s	IC MC14013BF
IC210	8-759-009-02	s	IC MC14046BF
IC211	8-759-925-72	s	IC SN74HC02NS
IC212	8-759-209-15	s	IC TC4SU69F
IC213	--PENDING---	s	IC UPD75P008GB-3B4-MU
IC214	8-759-944-79	s	IC CXD1132Q
IC501	8-759-981-65	s	IC LM2903M
IC502	8-759-983-74	s	IC LM324NS
IC503	8-759-981-65	s	IC LM2903M
IC504	8-759-982-21	s	IC RC78L05A
IC505	8-759-300-71	s	IC HD14053BFP
IC506	1-807-985-12	s	IC BH1812
IC507	8-759-981-65	s	IC LM2903M
IC508	8-759-983-74	s	IC LM324NS
IC511	8-759-977-80	s	IC MB88342PF
IC512	8-759-300-71	s	IC HD14053BFP
IC516	8-759-983-69	s	IC LM358PS
IC518	8-759-009-05	s	IC MC14051BF
IC519	8-759-323-88	s	IC HD6435328RA00F
IC520	8-752-330-61	s	IC CXK1013P
IC524	8-759-300-71	s	IC HD14053BFP
IC525	8-752-323-63	s	IC CXK5816M-10L
IC526	8-759-925-76	s	IC SN74HC08NS
IC528	8-759-231-32	s	IC TC7S00F
IC601	8-759-983-69	s	IC LM358PS
IC602	8-759-941-38	s	IC BA6229U3
IC603	8-759-981-54	s	IC RC2041MD
IC604	8-759-983-74	s	IC LM324NS
IC605	8-759-983-69	s	IC LM358PS
IC607	8-759-983-74	s	IC LM324NS
IC901	8-752-340-03	s	IC CXD2202Q
L3	1-424-517-11	s	COIL, CHOKE 200UH
L601	1-424-517-11	s	COIL, CHOKE 200UH
L602	1-424-517-11	s	COIL, CHOKE 200UH
L604	1-424-517-11	s	COIL, CHOKE 200UH
L605	1-424-517-11	s	COIL, CHOKE 200UH
Q1	8-729-905-18	s	TRANSISTOR DTC144EU
Q2	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q3	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q4	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q5	8-729-805-20	s	TRANSISTOR 2SB1202-R
Q6	8-729-159-64	s	TRANSISTOR 2SD596
Q7	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q8	8-729-159-64	s	TRANSISTOR 2SD596
Q9	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q10	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q11	8-729-905-18	s	TRANSISTOR DTC144EU
Q12	8-729-321-78	s	TRANSISTOR 2SJ176
Q13	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q14	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q200	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q502	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q503	8-729-905-18	s	TRANSISTOR DTC144EU
Q504	8-729-905-18	s	TRANSISTOR DTC144EU
Q505	8-729-905-18	s	TRANSISTOR DTC144EU
Q506	8-729-905-18	s	TRANSISTOR DTC144EU
Q507	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.

(SST-1P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q600	8-729-805-20	s	TRANSISTOR 2SB1202-R
Q602	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q603	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q604	8-729-805-20	s	TRANSISTOR 2SB1202-R
Q605	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q606	8-729-805-20	s	TRANSISTOR 2SB1202-R
Q607	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q608	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q609	8-729-805-20	s	TRANSISTOR 2SB1202-R
Q610	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q611	8-729-805-20	s	TRANSISTOR 2SB1202-R
Q612	8-729-805-20	s	TRANSISTOR 2SB1202-R
Q613	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q614	8-729-805-20	s	TRANSISTOR 2SB1202-R
Q615	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q617	8-729-805-20	s	TRANSISTOR 2SB1202-R
Q618	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q619	8-729-805-20	s	TRANSISTOR 2SB1202-R
Q620	8-729-805-20	s	TRANSISTOR 2SB1202-R
Q621	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q622	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q623	8-729-805-20	s	TRANSISTOR 2SB1202-R
Q624	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q625	8-729-805-20	s	TRANSISTOR 2SB1202-R
Q626	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q629	8-729-143-79	s	TRANSISTOR 2SK738
Q631	8-729-143-79	s	TRANSISTOR 2SK738
Q633	8-729-143-79	s	TRANSISTOR 2SK738
Q635	8-729-143-79	s	TRANSISTOR 2SK738
Q637	8-729-143-79	s	TRANSISTOR 2SK738
Q639	8-729-143-79	s	TRANSISTOR 2SK738
Q640	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q641	8-729-905-18	s	TRANSISTOR DTC144EU
R44	1-218-727-11	s	METAL, CHIP 30K 0.50% 1/16W
R613	1-216-343-00	s	METAL 0.33 5% 1W
R614	1-216-343-00	s	METAL 0.33 5% 1W
R651	1-216-343-00	s	METAL 0.33 5% 1W
R685	1-216-343-00	s	METAL 0.33 5% 1W
RV1	1-237-036-11	s	RES, ADJ METAL 10K
RV500	1-237-038-11	s	RES, ADJ METAL 50K
RV501	1-241-520-11	s	RES, VAR CARBON 10K
RV504	1-237-036-11	s	RES, ADJ METAL 10K
S501	1-554-371-51	s	SWITCH, PUSH
S502	1-554-371-51	s	SWITCH, PUSH
X1	1-577-110-11	s	CRYSTAL 20MHz
X200	1-567-867-11	s	CRYSTAL, 14.500MHz
X201	1-578-741-11	s	CRYSTAL 31.25 KHz
X202	1-567-160-21	s	RESONATOR, CERAMIC 4.19MHz
X501	1-577-110-11	s	CRYSTAL 20MHz
X502	1-577-110-11	s	CRYSTAL 20MHz

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.

TBC-19P BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6727-337-A	o	MOUNTED CIRCUIT BOARD, TBC-19P
C101	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C130	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C204	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C307	1-164-315-11	s	CERAMIC, CHIP 470PF 10% 50V
C320	1-164-315-11	s	CERAMIC, CHIP 470PF 10% 50V
C621	1-164-315-11	s	CERAMIC, CHIP 470PF 10% 50V
C626	1-135-078-21	s	TANTALUM, CHIP 2.2uF 20% 35V
C629	1-164-315-11	s	CERAMIC, CHIP 470PF 10% 50V
C641	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C765	1-162-716-11	s	CERAMIC 180PF 1% 50V
C870	1-161-051-00	s	CERAMIC 0.01uF 10% 50V
CN1	1-568-084-11	s	CONNECTOR, HINGE 30P, FEMALE
CN2	1-568-079-11	s	CONNECTOR, HINGE 20P, FEMALE
CN3	1-506-468-11	s	CONNECTOR 3P, MALE
D101	8-719-941-23	s	DIODE DA204U
D201	8-719-941-23	s	DIODE DA204U
D302	8-719-941-23	s	DIODE DA204U
D303	8-719-915-43	s	DIODE, VARICAP FC54M
D304	8-719-915-43	s	DIODE, VARICAP FC54M
D306	8-719-941-09	s	DIODE DAP202U
D307	8-719-911-19	s	DIODE 1SS119
D309	8-719-109-75	s	DIODE RD4.3ES-B2
D402	8-719-941-23	s	DIODE DA204U
D403	8-719-915-43	s	DIODE, VARICAP FC54M
D404	8-719-915-43	s	DIODE, VARICAP FC54M
D406	8-719-941-09	s	DIODE DAP202U
D407	8-719-911-19	s	DIODE 1SS119
D501	8-719-941-23	s	DIODE DA204U
D502	8-719-941-86	s	DIODE DAN202U
D503	8-719-941-09	s	DIODE DAP202U
D504	8-719-941-86	s	DIODE DAN202U
D505	8-719-941-23	s	DIODE DA204U
D506	8-719-941-09	s	DIODE DAP202U
D602	8-719-941-23	s	DIODE DA204U
D603	8-719-941-23	s	DIODE DA204U
D604	8-719-941-23	s	DIODE DA204U
D701	8-719-941-86	s	DIODE DAN202U
D702	8-719-941-09	s	DIODE DAP202U
D703	8-719-941-09	s	DIODE DAP202U
D704	8-719-911-19	s	DIODE 1SS119
DL701	1-415-825-11	s	DELAY LINE 25nS
DL801	1-415-826-11	s	DELAY LINE 135nS
DL802	1-415-826-11	s	DELAY LINE 135nS
FB601	1-543-309-21	s	BEAD, FERRITE
FB602	1-543-309-21	s	BEAD, FERRITE
FL101	1-239-069-11	s	FILTER, LOW-PASS
FL201	1-235-759-11	s	FILTER, LOW-PASS
FL701	1-236-125-22	s	FILTER, LOW-PASS
FL702	1-236-125-22	s	FILTER, LOW-PASS
FL703	1-239-068-11	s	FILTER, LOW-PASS
FL801	1-235-181-00	s	FILTER, BANDPASS 4.43MHz
IC1	8-759-927-46	s	IC SN74HC00NS
IC2	8-759-983-74	s	IC LM324NS
IC3	8-759-983-69	s	IC LM358PS

(TBC-19P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
IC4	8-759-939-41	s	IC S-81230AG-RB
IC5	8-759-510-15	s	IC S-80230AG-GA-T1
IC101	1-809-333-11	s	IC H8D7151
IC102	8-759-014-29	s	IC MC34184M
IC103	8-759-234-77	s	IC TC4S66F
IC104	8-759-710-88	s	IC NJM431U
IC105	8-752-334-55	s	IC CXD1175AM
IC106	8-759-702-08	s	IC NJM360M
IC201	8-759-014-29	s	IC MC34184M
IC202	1-809-333-11	s	IC H8D7151
IC204	8-759-234-77	s	IC TC4S66F
IC205	8-752-334-55	s	IC CXD1175AM
IC301	8-759-014-29	s	IC MC34184M
IC302	8-752-339-03	s	IC CXD2207Q
IC303	8-759-907-81	s	IC SN74LS221NS
IC304	8-759-941-17	s	IC SN74LS06NS
IC305	8-759-243-19	s	IC TC7SU04F
IC306	8-759-983-95	s	IC TL592BPS
IC308	8-759-035-93	s	IC SC7S32F
IC309	8-759-234-20	s	IC TC7S08F
IC310	8-759-243-19	s	IC TC7SU04F
IC317	8-759-035-93	s	IC SC7S32F
IC401	8-759-300-71	s	IC HD14053BFP
IC403	8-752-339-03	s	IC CXD2207Q
IC404	8-759-030-16	s	IC MC34182M
IC405	8-759-907-81	s	IC SN74LS221NS
IC406	8-759-941-17	s	IC SN74LS06NS
IC407	8-759-243-19	s	IC TC7SU04F
IC408	8-759-983-95	s	IC TL592BPS
IC410	8-759-035-93	s	IC SC7S32F
IC411	8-759-234-20	s	IC TC7S08F
IC412	8-759-243-19	s	IC TC7SU04F
IC413	8-759-209-54	s	IC TC4S01F
IC415	8-759-234-77	s	IC TC4S66F
IC416	8-759-926-24	s	IC SN74HC164NS
IC417	8-759-035-93	s	IC SC7S32F
IC501	8-759-925-74	s	IC TC74HC04NS
IC502	8-759-513-77	s	IC CXD8152Q
IC503	8-759-513-77	s	IC CXD8152Q
IC504	8-752-337-41	s	IC CXK1206M
IC505	8-752-337-41	s	IC CXK1206M
IC506	8-752-337-41	s	IC CXK1206M
IC507	8-752-337-41	s	IC CXK1206M
IC508	8-752-341-32	s	IC CXD2209Q
IC509	8-759-513-78	s	IC CXD8160Q
IC510	8-759-013-92	s	IC MC74HC164F
IC511	8-759-008-37	s	IC MC74HC4050F
IC512	8-759-234-20	s	IC TC7S08F
IC514	8-759-035-93	s	IC SC7S32F
IC601	8-759-925-74	s	IC TC74HC04NS
IC602	8-752-306-51	s	IC CX23065A
IC603	8-759-300-71	s	IC HD14053BFP
IC604	8-759-987-27	s	IC LM1881M
IC605	8-752-340-06	s	IC CXD2214Q
IC606	8-759-907-81	s	IC SN74LS221NS
IC607	8-759-014-29	s	IC MC34184M
IC608	8-759-300-71	s	IC HD14053BFP
IC609	8-752-306-51	s	IC CX23065A
IC610	8-759-928-09	s	IC TLC27M2CPS

(TBC-19P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
IC611	8-759-031-84	s	IC SC7S04F
IC612	8-759-031-84	s	IC SC7S04F
IC613	8-759-206-28	s	IC TC74HC123F
IC614	8-759-030-16	s	IC MC34182M
IC615	8-759-231-32	s	IC TC7S00F
IC616	8-759-234-20	s	IC TC7S08F
IC617	8-759-926-23	s	IC SN74HC163NS
IC618	8-759-031-84	s	IC SC7S04F
IC701	8-759-035-93	s	IC SC7S32F
IC702	8-752-334-64	s	IC CXD1171M
IC703	8-752-334-64	s	IC CXD1171M
IC704	8-752-334-64	s	IC CXD1171M
IC705	8-759-702-08	s	IC NJM360M
IC706	8-759-702-08	s	IC NJM360M
IC707	8-759-927-46	s	IC SN74HC00NS
IC708	8-759-239-23	s	IC TC74HC86AF
IC709	8-752-306-51	s	IC CX23065A
IC711	8-759-234-77	s	IC TC4S66F
IC712	8-759-030-16	s	IC MC34182M
IC713	8-759-100-93	s	IC UPC393G2
IC714	8-759-206-28	s	IC TC74HC123F
IC801	8-752-052-82	s	IC CXA1432M
IC802	8-752-052-82	s	IC CXA1432M
IC803	8-759-300-71	s	IC HD14053BFP
IC804	8-759-300-71	s	IC HD14053BFP
IC805	8-759-030-16	s	IC MC34182M
IC806	8-759-925-76	s	IC SN74HC08NS
IC807	8-759-927-46	s	IC SN74HC00NS
IC808	8-759-906-59	s	IC CX22017
IC810	1-809-333-11	s	IC H8D7151
IC811	1-809-333-11	s	IC H8D7151
IC812	1-809-333-11	s	IC H8D7151
IC814	1-809-333-11	s	IC H8D7151
IC815	8-759-031-84	s	IC SC7S04F
IC816	8-759-234-20	s	IC TC7S08F
IC817	8-759-031-84	s	IC SC7S04F
L304	1-410-723-61	s	INDUCTOR, CHIP 330UH
L305	1-410-727-61	s	INDUCTOR, CHIP 680UH
L403	1-408-784-11	s	INDUCTOR, CHIP 39UH
L404	1-410-717-31	s	INDUCTOR, CHIP 100uH
L407	1-410-711-31	s	INDUCTOR, CHIP 33UH
L716	1-410-464-11	s	INDUCTOR 3.3uH
LV301	1-412-810-11	s	COIL, VAR 8.2UH
LV401	1-412-810-11	s	COIL, VAR 8.2UH
LV801	1-412-811-11	s	COIL, VAR 2.2UH
LV802	1-412-811-11	s	COIL, VAR 2.2UH
Q1	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q2	8-729-101-07	s	TRANSISTOR 2SB798
Q3	8-729-807-50	s	TRANSISTOR 2SD1623-R
Q4	8-729-807-50	s	TRANSISTOR 2SD1623-R
Q5	8-729-807-50	s	TRANSISTOR 2SD1623-R
Q6	8-729-807-50	s	TRANSISTOR 2SD1623-R
Q101	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q102	8-729-117-72	s	TRANSISTOR 2SC4178
Q201	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q202	8-729-117-72	s	TRANSISTOR 2SC4178
Q301	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.

(TBC-19P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q302	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q303	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q304	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q305	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q306	8-729-905-12	s	TRANSISTOR DTA144EU
Q307	8-729-905-18	s	TRANSISTOR DTC144EU
Q401	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q402	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q403	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q404	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q405	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q406	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q407	8-729-905-12	s	TRANSISTOR DTA144EU
Q601	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q602	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q603	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q604	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q605	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q606	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q607	8-729-117-72	s	TRANSISTOR 2SC4178
Q608	8-729-117-72	s	TRANSISTOR 2SC4178
Q609	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q610	8-729-905-18	s	TRANSISTOR DTC144EU
Q611	8-729-905-18	s	TRANSISTOR DTC144EU
Q701	8-729-907-26	s	TRANSISTOR IMX1
Q702	8-729-907-26	s	TRANSISTOR IMX1
Q707	8-729-117-72	s	TRANSISTOR 2SC4178
Q708	8-729-117-72	s	TRANSISTOR 2SC4178
Q709	8-729-117-72	s	TRANSISTOR 2SC4178
Q710	8-729-117-72	s	TRANSISTOR 2SC4178
Q715	8-729-905-18	s	TRANSISTOR DTC144EU
Q716	8-729-905-18	s	TRANSISTOR DTC144EU
Q801	8-729-117-72	s	TRANSISTOR 2SC4178
Q802	8-729-117-72	s	TRANSISTOR 2SC4178
Q803	8-729-117-72	s	TRANSISTOR 2SC4178
Q804	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q805	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q806	8-729-907-46	s	TRANSISTOR IMZ1
Q807	8-729-904-41	s	TRANSISTOR FMY3
Q808	8-729-117-72	s	TRANSISTOR 2SC4178
Q809	8-729-117-72	s	TRANSISTOR 2SC4178
Q810	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q811	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q812	8-729-907-46	s	TRANSISTOR IMZ1
Q813	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q814	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q815	8-729-117-72	s	TRANSISTOR 2SC4178
Q816	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q817	8-729-117-72	s	TRANSISTOR 2SC4178
Q818	8-729-904-41	s	TRANSISTOR FMY3
Q819	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q820	8-729-907-46	s	TRANSISTOR IMZ1
Q821	8-729-907-46	s	TRANSISTOR IMZ1
Q822	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
R114	1-218-344-11	s	METAL, CHIP 7.5K 0.50% 1/16W
R307	1-216-795-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R336	1-216-795-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R363	1-216-810-11	s	METAL, CHIP 120 5% 1/16W
R369	1-215-467-00	s	METAL 82K 1% 1/6W

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.

(TBC-19P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R460	1-216-810-11	s	METAL, CHIP 120 5% 1/16W
R491	1-249-437-11	s	CARBON 47K 5% 1/4W
R601	1-249-417-11	s	CARBON 1K 5% 1/4W
R731	1-218-689-91	s	METAL, CHIP 750 0.50% 1/16W
R733	1-214-552-00	s	METAL 620 1% 1/8W
R900	1-218-698-11	s	METAL, CHIP 1.8K 0.50% 1/16W
R907	1-218-698-11	s	METAL, CHIP 1.8K 0.50% 1/16W
RV101	1-237-033-11	s	RES, ADJ METAL 1K
RV102	1-237-032-11	s	RES, ADJ METAL 500
RV201	1-237-033-11	s	RES, ADJ METAL 1K
RV202	1-237-032-11	s	RES, ADJ METAL 500
RV301	1-237-034-11	s	RES, ADJ METAL 2K
RV302	1-237-032-11	s	RES, ADJ METAL 500
RV307	1-237-034-11	s	RES, ADJ METAL 2K
RV308	1-237-033-11	s	RES, ADJ METAL 1K
RV309	1-237-034-11	s	RES, ADJ METAL 2K
RV401	1-237-033-11	s	RES, ADJ METAL 1K
RV403	1-237-032-11	s	RES, ADJ METAL 500
RV404	1-237-034-11	s	RES, ADJ METAL 2K
RV405	1-237-034-11	s	RES, ADJ METAL 2K
RV406	1-237-033-11	s	RES, ADJ METAL 1K
RV409	1-237-036-11	s	RES, ADJ METAL 10K
RV601	1-237-035-11	s	RES, ADJ METAL 5K
RV602	1-237-041-11	s	RES, ADJ METAL 500K
RV603	1-237-035-11	s	RES, ADJ METAL 5K
RV605	1-237-032-11	s	RES, ADJ METAL 500
RV606	1-241-520-11	s	RES, VAR CARBON 10K
RV701	1-237-035-11	s	RES, ADJ METAL 5K
RV702	1-237-035-11	s	RES, ADJ METAL 5K
RV703	1-237-035-11	s	RES, ADJ METAL 5K
RV705	1-237-040-11	s	RES, ADJ METAL 200K
RV706	1-237-034-11	s	RES, ADJ METAL 2K
RV801	1-237-036-11	s	RES, ADJ METAL 10K
RV802	1-237-034-11	s	RES, ADJ METAL 2K
RV803	1-237-034-11	s	RES, ADJ METAL 2K
RV804	1-237-035-11	s	RES, ADJ METAL 5K
RV805	1-237-034-11	s	RES, ADJ METAL 2K
RV806	1-237-036-11	s	RES, ADJ METAL 10K
RV807	1-237-036-11	s	RES, ADJ METAL 10K
RV808	1-237-034-11	s	RES, ADJ METAL 2K
RV813	1-237-034-11	s	RES, ADJ METAL 2K
RV814	1-237-034-11	s	RES, ADJ METAL 2K
RV815	1-237-034-11	s	RES, ADJ METAL 2K
RV816	1-237-036-11	s	RES, ADJ METAL 10K
RV817	1-241-520-11	s	RES, VAR CARBON 10K
RV818	1-237-036-11	s	RES, ADJ METAL 10K
RV819	1-237-034-11	s	RES, ADJ METAL 2K
S601	1-571-275-11	s	SWITCH, SLIDE
S801	1-571-275-11	s	SWITCH, SLIDE
TH301	1-808-862-21	s	THERMISTOR, CHIP
TH401	1-808-862-21	s	THERMISTOR, CHIP
X601	1-577-294-11	s	VCO, CRYSTAL 14.187500MHz
X602	1-577-295-11	s	VCO, CRYSTAL 17.734475MHz

TR-57 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-564-831-11	o	CONTACT, FEMALE
1pc	1-569-193-11	o	CONTACT, FEMALE
1pc	1-638-710-11	o	PRINTED CIRCUIT BOARD, TR-57
1pc	3-680-830-01	o	HOLDER, DME
CN954	1-569-197-41	o	HOUSING 4P
PD1	8-745-001-07	s	DM-230-1

VR-118 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6713-422-A	o	MOUNTED CIRCUIT BOARD, VR-118
C339	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C341	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
CN551	1-565-878-11	s	CONNECTOR 6P, MALE
CN552	1-506-486-11	s	CONNECTOR 7P, MALE
CN553	1-506-485-11	s	CONNECTOR 6P, MALE
CN554	1-506-482-11	s	CONNECTOR 3P, MALE
CN555	1-565-884-11	o	CONNECTOR 12P, MALE
CN556	1-565-876-11	o	CONNECTOR 4P, MALE
CN557	1-565-879-11	s	CONNECTOR 7P, MALE
D301	8-719-941-23	s	DIODE DA204U
D302	8-719-941-23	s	DIODE DA204U
IC301	8-759-512-08	s	IC NJM2068MD
IC302	8-759-300-71	s	IC HD14053BFP
IC303	8-759-981-54	s	IC RC2041MD
IC304	8-759-009-10	s	IC MC14069UBF
IC305	8-759-512-08	s	IC NJM2068MD
IC306	8-759-981-99	s	IC RC4560M
IC307	8-759-981-99	s	IC RC4560M
IC308	8-759-300-71	s	IC HD14053BFP
IC309	8-759-906-53	s	IC TL062CPS
IC310	8-759-906-53	s	IC TL062CPS
Q301	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q302	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q303	8-729-905-18	s	TRANSISTOR DTC144EU
Q304	8-729-905-18	s	TRANSISTOR DTC144EU
Q305	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q306	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q307	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q308	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q309	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q310	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q311	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q312	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q313	8-729-905-18	s	TRANSISTOR DTC144EU
Q314	8-729-905-18	s	TRANSISTOR DTC144EU
RV301	1-241-522-11	s	RES, VAR CARBON 10K
RV302	1-241-522-11	s	RES, VAR CARBON 10K
RV303	1-241-522-11	s	RES, VAR CARBON 10K
RV304	1-241-522-11	s	RES, VAR CARBON 10K
RV305	1-241-522-11	s	RES, VAR CARBON 10K
RV306	1-241-522-11	s	RES, VAR CARBON 10K
RV307	1-241-522-11	s	RES, VAR CARBON 10K
RV308	1-241-522-11	s	RES, VAR CARBON 10K
RV311	1-237-037-11	s	RES, ADJ METAL 20K
RV312	1-237-037-11	s	RES, ADJ METAL 20K
S301	1-554-355-00	s	SWITCH, TOGGLE
S302	1-553-906-00	s	SWITCH, SLIDE

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.

VRP-1P BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6727-336-A	o	MOUNTED CIRCUIT BOARD, VRP-1P
1pc	1-641-911-11	o	PRINTED CIRCUIT BOARD, DUS-491
1pc	1-642-085-11	o	PRINTED CIRCUIT BOARD, SW-537
C4	1-127-516-11	s	ALUMN SOLID 220uF 20% 10V
C43	1-164-315-11	s	CERAMIC, CHIP 470PF 10% 50V
C44	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C46	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C105	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C122	1-127-515-11	s	ALUMN SOLID 47uF 20% 10V
C123	1-127-515-11	s	ALUMN SOLID 47uF 20% 10V
C126	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C131	1-124-584-00	s	ELECT 100uF 20% 10V
C138	1-127-518-11	s	ALUMIN SOLID 100uF 20% 16V
C178	1-164-315-11	s	CERAMIC, CHIP 470PF 10% 50V
C180	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C181	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C183	1-127-518-11	s	ALUMIN SOLID 100uF 20% 16V
C202	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C203	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C204	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C205	1-164-315-11	s	CERAMIC, CHIP 470PF 10% 50V
C208	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C215	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C226	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C234	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C235	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C236	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C241	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C245	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C246	1-164-315-11	s	CERAMIC, CHIP 470PF 10% 50V
C254	1-164-363-11	s	CERAMIC, CHIP 560PF 5% 50V
C276	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C287	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C288	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C299	1-161-055-00	s	CERAMIC 0.022uF 10% 50V
C303	1-124-471-00	s	ELECT 1000uF 20% 6.3V
C320	1-107-338-11	s	MICA 180PF 0.25% 100
C333	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C334	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C336	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C338	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C403	1-124-471-00	s	ELECT 1000uF 20% 6.3V
C406	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C410	1-107-338-11	s	MICA 180PF 0.25% 100
C423	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C424	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C426	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C429	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C431	1-164-470-91	s	CERAMIC, CHIP 620PF 5% 50V
C500	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C501	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C502	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C503	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C506	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C507	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C508	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C509	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C510	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.

(VRP-1P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C514	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C515	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C521	1-127-518-11	s	ALUMIN SOLID 100uF 20% 16V
C526	1-124-471-00	s	ELECT 1000uF 20% 6.3V
C540	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C619	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C624	1-164-315-11	s	CERAMIC, CHIP 470PF 10% 50V
C649	1-164-315-11	s	CERAMIC, CHIP 470PF 10% 50V
C657	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C693	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C712	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C717	1-164-315-11	s	CERAMIC, CHIP 470PF 10% 50V
C734	1-164-315-11	s	CERAMIC, CHIP 470PF 10% 50V
C747	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C774	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C775	1-164-363-11	s	CERAMIC, CHIP 560PF 5% 50V
C776	1-164-363-11	s	CERAMIC, CHIP 560PF 5% 50V
C817	1-107-338-11	s	MICA 180PF 0.25% 100
C830	1-127-518-11	s	ALUMIN SOLID 100uF 20% 16V
C916	1-107-338-11	s	MICA 180PF 0.25% 100
C928	1-127-518-11	s	ALUMIN SOLID 100uF 20% 16V
C1019	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C1026	1-164-360-11	s	CERAMIC, CHIP 0.1uF 16V
C1028	1-164-315-11	s	CERAMIC, CHIP 470PF 10% 50V
C1029	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C1032	1-164-357-11	s	CERAMIC, CHIP 1000PF 5% 50V
C1033	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C1034	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C1056	1-126-160-11	s	ELECT 1uF 20% 50V
CN1	1-580-857-11	s	CONNECTOR, BB 15P, MALE
CN2	1-569-335-11	s	CONNECTOR, BB 9P, MALE
CN3	1-580-857-11	s	CONNECTOR, BB 15P, MALE
CN4	1-568-098-11	o	CONNECTOR, HINGE 30P, MALE
CN5	1-568-084-11	s	CONNECTOR, HINGE 30P, FEMALE
CN6	1-568-084-11	s	CONNECTOR, HINGE 30P, FEMALE
CN7	1-568-093-11	s	CONNECTOR, HINGE 20P, MALE
CN8	1-506-477-11	s	CONNECTOR 12P, MALE
CN9	1-506-471-11	s	CONNECTOR 6P, MALE
CN10	1-569-333-11	s	CONNECTOR, BB 3P, MALE
CN501	1-506-469-11	s	CONNECTOR 4P, MALE
CN502	1-506-469-11	s	CONNECTOR 4P, MALE
CN503	1-506-468-11	s	CONNECTOR 3P, MALE
CN601	1-506-477-11	s	CONNECTOR 12P, MALE
CN602	1-506-467-11	s	CONNECTOR 2P, MALE
CN603	1-506-471-11	s	CONNECTOR 6P, MALE
CN604	1-506-467-11	s	CONNECTOR 2P, MALE
COP501	1-563-859-11	s	PLUG, SHORTING
COP502	1-563-859-11	s	PLUG, SHORTING
COP503	1-563-859-11	s	PLUG, SHORTING
COP504	1-563-859-11	s	PLUG, SHORTING
COR501	1-566-388-11	s	CONNECTOR 8P, MALE
COR502	1-566-388-11	s	CONNECTOR 8P, MALE
COR503	1-566-388-11	s	CONNECTOR 8P, MALE
COR504	1-566-388-11	s	CONNECTOR 8P, MALE
D101	8-719-105-46	s	DIODE RD3.3M-B2
D102	8-719-105-46	s	DIODE RD3.3M-B2
D103	8-719-941-86	s	DIODE DAN202U
D111	8-719-941-04	s	DIODE SB007-03CP

(VRP-1P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
D112	8-719-941-04	s	DIODE SB007-03CP
D121	8-719-941-04	s	DIODE SB007-03CP
D122	8-719-941-04	s	DIODE SB007-03CP
D201	8-719-907-19	s	DIODE, VARICAP FC52M-5
D202	8-719-821-39	s	DIODE 1SV160
D203	8-719-941-23	s	DIODE DA204U
D204	8-719-941-23	s	DIODE DA204U
D205	8-719-157-36	s	DIODE RD6.8M-B (D1/DUS-491)
D301	8-719-941-23	s	DIODE DA204U
D500	8-719-106-70	s	DIODE RD12M-B1
D1001	8-719-157-36	s	DIODE RD6.8M-B
D1002	8-719-941-86	s	DIODE DAN202U
D1003	8-719-941-86	s	DIODE DAN202U
DL101	1-415-825-11	s	DELAY LINE 25nS
DL201	1-415-168-00	s	DELAY LINE 200ns
DL601	1-415-823-11	s	DELAY LINE 55nS
DL602	1-415-825-11	s	DELAY LINE 25nS
DL701	1-415-822-11	s	DELAY LINE 65nS
DL702	1-415-824-11	s	DELAY LINE 30nS
FB1	1-543-309-21	s	BEAD, FERRITE
FB2	1-543-309-21	s	BEAD, FERRITE
FB3	1-543-309-21	s	BEAD, FERRITE
FB4	1-543-309-21	s	BEAD, FERRITE
FB101	1-543-309-21	s	BEAD, FERRITE
FB102	1-543-309-21	s	BEAD, FERRITE
FB103	1-543-309-21	s	BEAD, FERRITE
FB104	1-543-309-21	s	BEAD, FERRITE
FB105	1-543-309-21	s	BEAD, FERRITE
FB500	1-543-309-21	s	BEAD, FERRITE
FB501	1-543-309-21	s	BEAD, FERRITE
FL1	1-239-069-11	s	FILTER, LOW-PASS
FL101	1-236-230-11	s	FILTER, LOW-PASS
FL102	1-236-230-11	s	FILTER, LOW-PASS
FL103	1-239-068-11	s	FILTER, LOW-PASS
FL104	1-239-067-11	s	FILTER, LOW-PASS
FL201	1-235-181-00	s	FILTER, BANDPASS 4.43MHz
FL301	1-236-019-11	s	FILTER, LOW-PASS
FL401	1-236-021-11	s	FILTER, LOW-PASS
FL801	1-239-066-11	s	FILTER, LOW-PASS
FL802	1-239-115-11	s	FILTER, LOW-PASS
FL803	1-239-064-11	s	FILTER, LOW-PASS
FL901	1-239-063-11	s	FILTER, LOW-PASS
IC1	8-759-925-74	s	IC TC74HC04NS
IC2	8-759-035-93	s	IC SC7S32F
IC3	8-759-925-76	s	IC SN74HC08NS
IC4	8-759-983-74	s	IC LM324NS
IC5	8-759-300-71	s	IC HD14053BFP
IC6	8-759-037-41	s	IC MC14577AF
IC7	8-752-052-77	s	IC CXA1450M
IC8	8-759-300-71	s	IC HD14053BFP
IC9	8-752-052-73	s	IC CXA1451M
IC10	8-752-052-73	s	IC CXA1451M
IC11	8-759-987-27	s	IC LM1881M
IC12	8-752-052-73	s	IC CXA1451M
IC13	8-752-052-73	s	IC CXA1451M
IC14	8-752-052-73	s	IC CXA1451M
IC15	8-752-052-73	s	IC CXA1451M

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Ref. No. or Q'ty	Part No.	SP	Description
IC16	8-759-035-93	s	IC SC7S32F
IC17	8-759-035-93	s	IC SC7S32F
IC18	8-759-031-84	s	IC SC7S04F
IC101	1-809-333-11	s	IC H8D7151
IC103	1-809-333-11	s	IC H8D7151
IC104	1-809-333-11	s	IC H8D7151
IC105	8-759-030-16	s	IC MC34182M
IC108	8-759-996-29	s	IC MB40568
IC109	8-759-996-29	s	IC MB40568
IC110	8-759-113-97	s	IC UPD42505C-50
IC111	8-759-113-97	s	IC UPD42505C-50
IC112	8-759-513-76	s	IC CXD8161AQ
IC113	8-752-329-28	s	IC CXD1151Q
IC114	8-752-334-64	s	IC CXD1171M
IC115	8-752-334-64	s	IC CXD1171M
IC116	8-759-710-88	s	IC NJM431U
IC118	8-759-239-34	s	IC TC74HC4538AF
IC120	8-759-030-16	s	IC MC34182M
IC121	8-759-234-08	s	IC TA78L05F
IC122	8-759-234-08	s	IC TA78L05F
IC201	8-752-339-04	s	IC CXD2208Q
IC203	8-759-513-14	s	IC CXD8243M
IC204	8-759-031-84	s	IC SC7S04F
IC205	8-759-030-16	s	IC MC34182M
IC206	8-759-030-16	s	IC MC34182M
IC207	8-759-008-67	s	IC MC14066BF
IC208	8-759-014-29	s	IC MC34184M
IC209	8-759-008-37	s	IC MC74HC4050F
IC210	8-759-907-81	s	IC SN74LS221NS
IC211	8-759-239-58	s	IC TC74HC221AF
IC212	8-759-009-06	s	IC MC14052BF
IC213	8-759-983-74	s	IC LM324NS
IC214	8-759-008-67	s	IC MC14066BF
IC215	8-759-030-16	s	IC MC34182M
IC216	8-759-243-19	s	IC TC7SU04F
IC217	8-759-031-84	s	IC SC7S04F
IC218	8-759-234-77	s	IC TC4S66F
IC219	8-759-035-93	s	IC SC7S32F
IC220	8-759-031-84	s	IC SC7S04F
IC221	8-759-031-84	s	IC SC7S04F
IC222	8-759-710-82	s	IC NJM2406F
IC223	8-759-031-84	s	IC SC7S04F
IC301	1-809-331-11	s	IC H8D7144E
IC302	8-752-052-76	s	IC CXA1480Q
IC303	8-759-300-71	s	IC HD14053BFP
IC401	1-809-331-11	s	IC H8D7144E
IC402	8-759-300-71	s	IC HD14053BFP
IC501	8-759-925-74	s	IC TC74HC04NS
IC502	8-759-983-69	s	IC LM358PS
IC503	1-809-334-11	s	IC H8D7184A
IC504	1-809-334-11	s	IC H8D7184A
IC505	1-809-334-11	s	IC H8D7184A
IC506	1-809-334-11	s	IC H8D7184A
IC508	8-759-925-76	s	IC SN74HC08NS
IC510	8-759-234-20	s	IC TC7S08F
IC511	8-759-031-84	s	IC SC7S04F
IC601	8-759-925-72	s	IC SN74HC02NS
IC602	8-759-925-74	s	IC TC74HC04NS
IC603	8-759-983-74	s	IC LM324NS

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.

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Ref. No. or Q'ty	Part No.	SP	Description
IC604	8-759-009-06	s	IC MC14052BF
IC605	8-752-030-66	s	IC CXA1077M
IC606	8-752-052-75	s	IC CXA1479Q
IC607	8-759-300-71	s	IC HD14053BFP
IC609	8-759-300-71	s	IC HD14053BFP
IC610	8-759-009-06	s	IC MC14052BF
IC611	8-759-014-29	s	IC MC34184M
IC612	8-759-927-46	s	IC SN74HC00NS
IC613	8-759-983-95	s	IC TL592BPS
IC614	8-759-031-84	s	IC SC7S04F
IC702	8-752-030-66	s	IC CXA1077M
IC703	8-752-052-75	s	IC CXA1479Q
IC704	8-759-009-06	s	IC MC14052BF
IC706	8-759-009-06	s	IC MC14052BF
IC707	8-759-014-29	s	IC MC34184M
IC708	8-759-983-95	s	IC TL592BPS
IC801	8-752-052-48	s	IC CXA1370Q
IC802	8-759-300-71	s	IC HD14053BFP
IC803	1-809-333-11	s	IC H8D7151
IC804	1-809-332-11	s	IC H8D7169C
IC806	8-759-927-46	s	IC SN74HC00NS
IC807	8-759-234-08	s	IC TA78L05F
IC818	8-752-052-77	s	IC CXA1450M
IC901	8-752-052-48	s	IC CXA1370Q
IC902	1-809-333-11	s	IC H8D7151
IC903	1-809-332-11	s	IC H8D7169C
IC907	8-759-234-08	s	IC TA78L05F
IC918	8-752-052-77	s	IC CXA1450M
IC1001	8-759-239-34	s	IC TC74HC4538AF
IC1002	8-759-925-90	s	IC SN74HC74NS
IC1003	8-759-300-71	s	IC HD14053BFP
IC1004	8-752-002-99	s	IC CX20030
IC1005	8-759-233-94	s	IC TA8607F
IC1006	8-759-035-93	s	IC SC7S32F
IC1007	8-759-234-20	s	IC TC7S08F
L501	1-408-780-21	s	INDUCTOR CHIP 18UH
L706	1-408-772-21	s	INDUCTOR, CHIP 3.9UH
LV201	1-412-018-11	s	COIL, VAR 5.6uH
Q1	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q2	8-729-101-07	s	TRANSISTOR 2SB798
Q3	8-729-807-50	s	TRANSISTOR 2SD1623-R
Q4	8-729-807-50	s	TRANSISTOR 2SD1623-R
Q5	8-729-807-50	s	TRANSISTOR 2SD1623-R
Q6	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q7	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q8	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q9	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q10	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q11	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q12	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q13	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q14	8-729-904-41	s	TRANSISTOR FMY3
Q16	8-729-907-46	s	TRANSISTOR IMZ1
Q17	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q18	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q19	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q21	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q101	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6

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Ref. No. or Q'ty	Part No.	SP	Description
Q102	8-729-117-72	s	TRANSISTOR 2SC4178
Q103	8-729-117-72	s	TRANSISTOR 2SC4178
Q104	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q105	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q106	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q107	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q108	8-729-117-72	s	TRANSISTOR 2SC4178
Q109	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q110	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q111	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q113	8-729-905-18	s	TRANSISTOR DTC144EU
Q114	8-729-905-18	s	TRANSISTOR DTC144EU
Q115	8-729-422-44	s	TRANSISTOR 2SK663
Q116	8-729-422-44	s	TRANSISTOR 2SK663
Q117	8-729-905-18	s	TRANSISTOR DTC144EU
Q119	8-729-905-12	s	TRANSISTOR DTA144EU
Q201	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q202	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q203	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q204	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q205	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q206	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q207	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q208	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q209	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q210	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q211	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q212	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q213	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q214	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q215	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q216	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q218	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q219	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q301	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q302	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q303	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q304	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q306	8-729-905-18	s	TRANSISTOR DTC144EU
Q307	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q308	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q309	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q310	8-729-905-18	s	TRANSISTOR DTC144EU
Q311	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q312	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q314	8-729-117-72	s	TRANSISTOR 2SC4178
Q315	8-729-117-72	s	TRANSISTOR 2SC4178
Q316	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q317	8-729-905-18	s	TRANSISTOR DTC144EU
Q318	8-729-905-18	s	TRANSISTOR DTC144EU (Q8/SW-537)
Q402	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q403	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q404	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q405	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q406	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q407	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q408	8-729-905-18	s	TRANSISTOR DTC144EU
Q409	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q410	8-729-117-31	s	TRANSISTOR 2SC4177-L5

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.

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Ref. No. or Q'ty	Part No.	SP	Description
Q412	8-729-117-72	s	TRANSISTOR 2SC4178
Q413	8-729-117-72	s	TRANSISTOR 2SC4178
Q414	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q415	8-729-905-18	s	TRANSISTOR DTC144EU
Q417	8-729-905-18	s	TRANSISTOR DTC144EU
Q418	8-729-117-72	s	TRANSISTOR 2SC4178
Q419	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q420	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q500	8-729-117-72	s	TRANSISTOR 2SC4178
Q501	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q502	8-729-117-72	s	TRANSISTOR 2SC4178
Q503	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q504	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q505	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q506	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q507	8-729-117-72	s	TRANSISTOR 2SC4178
Q508	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q509	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q510	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q511	8-729-905-18	s	TRANSISTOR DTC144EU
Q512	8-729-905-12	s	TRANSISTOR DTA144EU
Q513	8-729-905-18	s	TRANSISTOR DTC144EU
Q514	8-729-905-12	s	TRANSISTOR DTA144EU
Q515	8-729-117-72	s	TRANSISTOR 2SC4178
Q516	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q517	8-729-117-72	s	TRANSISTOR 2SC4178
Q518	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q519	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q520	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q521	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q522	8-729-117-72	s	TRANSISTOR 2SC4178
Q523	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q524	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q525	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q526	8-729-807-50	s	TRANSISTOR 2SD1623-R
Q527	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q528	8-729-807-50	s	TRANSISTOR 2SD1623-R
Q529	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q530	8-729-117-72	s	TRANSISTOR 2SC4178
Q601	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q602	8-729-101-07	s	TRANSISTOR 2SB798
Q603	8-729-807-50	s	TRANSISTOR 2SD1623-R
Q604	8-729-807-50	s	TRANSISTOR 2SD1623-R
Q605	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q606	8-729-905-18	s	TRANSISTOR DTC144EU
Q607	8-729-117-72	s	TRANSISTOR 2SC4178
Q608	8-729-117-72	s	TRANSISTOR 2SC4178
Q609	8-729-117-72	s	TRANSISTOR 2SC4178
Q610	8-729-117-72	s	TRANSISTOR 2SC4178
Q611	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q612	8-729-117-72	s	TRANSISTOR 2SC4178
Q613	8-729-117-72	s	TRANSISTOR 2SC4178
Q614	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q615	8-729-117-72	s	TRANSISTOR 2SC4178
Q617	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q618	8-729-117-72	s	TRANSISTOR 2SC4178
Q619	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q620	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q621	8-729-117-72	s	TRANSISTOR 2SC4178

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Ref. No. or Q'ty	Part No.	SP	Description
Q622	8-729-117-72	s	TRANSISTOR 2SC4178
Q623	8-729-117-72	s	TRANSISTOR 2SC4178
Q624	8-729-117-72	s	TRANSISTOR 2SC4178
Q626	8-729-117-72	s	TRANSISTOR 2SC4178
Q627	8-729-117-72	s	TRANSISTOR 2SC4178
Q628	8-729-117-72	s	TRANSISTOR 2SC4178
Q630	8-729-907-46	s	TRANSISTOR IMZ1
Q631	8-729-905-12	s	TRANSISTOR DTA144EU
Q632	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q633	8-729-117-72	s	TRANSISTOR 2SC4178
Q701	8-729-905-18	s	TRANSISTOR DTC144EU
Q702	8-729-117-72	s	TRANSISTOR 2SC4178
Q703	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q704	8-729-117-72	s	TRANSISTOR 2SC4178
Q705	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q706	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q707	8-729-117-72	s	TRANSISTOR 2SC4178
Q708	8-729-140-63	s	TRANSISTOR 2SA1611-M5M6
Q709	8-729-117-72	s	TRANSISTOR 2SC4178
Q710	8-729-905-18	s	TRANSISTOR DTC144EU
Q712	8-729-117-72	s	TRANSISTOR 2SC4178
Q713	8-729-117-72	s	TRANSISTOR 2SC4178
Q714	8-729-117-72	s	TRANSISTOR 2SC4178
Q730	8-729-907-46	s	TRANSISTOR IMZ1
Q731	8-729-905-12	s	TRANSISTOR DTA144EU
Q732	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q801	8-729-117-72	s	TRANSISTOR 2SC4178
Q802	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q803	8-729-905-12	s	TRANSISTOR DTA144EU
Q804	8-729-117-72	s	TRANSISTOR 2SC4178
Q805	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q806	8-729-905-12	s	TRANSISTOR DTA144EU
Q807	8-729-117-72	s	TRANSISTOR 2SC4178
Q808	8-729-905-12	s	TRANSISTOR DTA144EU
Q809	8-729-905-18	s	TRANSISTOR DTC144EU
Q810	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q811	8-729-905-12	s	TRANSISTOR DTA144EU
Q812	8-729-905-12	s	TRANSISTOR DTA144EU
Q813	8-729-905-18	s	TRANSISTOR DTC144EU
Q814	8-729-905-12	s	TRANSISTOR DTA144EU
Q815	8-729-117-72	s	TRANSISTOR 2SC4178
Q816	8-729-117-72	s	TRANSISTOR 2SC4178
Q817	8-729-117-72	s	TRANSISTOR 2SC4178
Q818	8-729-117-72	s	TRANSISTOR 2SC4178
Q821	8-729-117-72	s	TRANSISTOR 2SC4178
Q822	8-729-117-72	s	TRANSISTOR 2SC4178
Q823	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q824	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q825	8-729-117-72	s	TRANSISTOR 2SC4178
Q826	8-729-117-72	s	TRANSISTOR 2SC4178
Q827	8-729-117-72	s	TRANSISTOR 2SC4178
Q901	8-729-117-72	s	TRANSISTOR 2SC4178
Q902	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q903	8-729-905-12	s	TRANSISTOR DTA144EU
Q904	8-729-117-72	s	TRANSISTOR 2SC4178
Q905	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q906	8-729-905-12	s	TRANSISTOR DTA144EU
Q907	8-729-905-12	s	TRANSISTOR DTA144EU
Q908	8-729-905-12	s	TRANSISTOR DTA144EU

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.

(VRP-1P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q909	8-729-117-72	s	TRANSISTOR 2SC4178
Q910	8-729-117-72	s	TRANSISTOR 2SC4178
Q913	8-729-117-72	s	TRANSISTOR 2SC4178
Q914	8-729-117-72	s	TRANSISTOR 2SC4178
Q915	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q916	8-729-143-07	s	TRANSISTOR 2SA1610-Y33
Q917	8-729-117-72	s	TRANSISTOR 2SC4178
Q918	8-729-117-72	s	TRANSISTOR 2SC4178
Q919	8-729-117-72	s	TRANSISTOR 2SC4178
Q1001	8-729-101-07	s	TRANSISTOR 2SB798
Q1002	8-729-117-31	s	TRANSISTOR 2SC4177-L5
Q1003	8-729-117-72	s	TRANSISTOR 2SC4178
Q1004	8-729-117-72	s	TRANSISTOR 2SC4178
Q1005	8-729-117-72	s	TRANSISTOR 2SC4178
Q1006	8-729-117-72	s	TRANSISTOR 2SC4178
Q1007	8-729-117-72	s	TRANSISTOR 2SC4178
Q1008	8-729-905-12	s	TRANSISTOR DTA144EU
Q1009	8-729-905-18	s	TRANSISTOR DTC144EU
Q1010	8-729-117-72	s	TRANSISTOR 2SC4178
Q1011	8-729-117-72	s	TRANSISTOR 2SC4178
Q1012	8-729-905-18	s	TRANSISTOR DTC144EU
Q1013	8-729-905-12	s	TRANSISTOR DTA144EU
Q1014	8-729-905-18	s	TRANSISTOR DTC144EU
Q1015	8-729-905-18	s	TRANSISTOR DTC144EU
Q1017	8-729-905-12	s	TRANSISTOR DTA144EU
R70	1-216-795-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R262	1-249-419-11	s	CARBON 1.5K 5% 1/4W
R344	1-218-650-91	s	METAL, CHIP 18 0.5% 1/16W
R382	1-215-465-00	s	METAL 68K 1% 1/6W
R388	1-218-296-11	s	METAL, CHIP 75K 5% 1/16W
R389	1-218-689-91	s	METAL, CHIP 750 0.50% 1/16W
R425	1-218-653-91	s	METAL, CHIP 24 0.5% 1/16W
R429	1-216-795-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R432	1-218-727-11	s	METAL, CHIP 30K 0.50% 1/16W
R455	1-218-689-91	s	METAL, CHIP 750 0.50% 1/16W
R793	1-218-482-11	s	METAL, CHIP 430 5% 1/16W
R818	1-218-738-11	s	METAL, CHIP 82K 0.5% 1/16W
R868	1-218-272-11	s	METAL 5.1K 5% 1/16W
R914	1-216-795-11	s	METAL, CHIP 6.8K 0.50% 1/16W
RV1	1-237-037-11	s	RES, ADJ METAL 20K
RV2	1-237-037-11	s	RES, ADJ METAL 20K
RV3	1-237-032-11	s	RES, ADJ METAL 500
RV5	1-237-032-11	s	RES, ADJ METAL 500
RV7	1-237-033-11	s	RES, ADJ METAL 1K
RV8	1-237-032-11	s	RES, ADJ METAL 500
RV9	1-237-032-11	s	RES, ADJ METAL 500
RV10	1-237-032-11	s	RES, ADJ METAL 500
RV101	1-237-034-11	s	RES, ADJ METAL 2K
RV102	1-237-032-11	s	RES, ADJ METAL 500
RV103	1-237-034-11	s	RES, ADJ METAL 2K
RV104	1-237-032-11	s	RES, ADJ METAL 500
RV105	1-237-036-11	s	RES, ADJ METAL 10K
RV106	1-237-036-11	s	RES, ADJ METAL 10K
RV201	1-237-034-11	s	RES, ADJ METAL 2K
RV203	1-237-037-11	s	RES, ADJ METAL 20K
RV204	1-237-037-11	s	RES, ADJ METAL 20K
RV206	1-237-037-11	s	RES, ADJ METAL 20K
RV207	1-237-037-11	s	RES, ADJ METAL 20K
RV208	1-237-037-11	s	RES, ADJ METAL 20K

(VRP-1P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
RV209	1-237-037-11	s	RES, ADJ METAL 20K
RV210	1-237-037-11	s	RES, ADJ METAL 20K
RV211	1-237-037-11	s	RES, ADJ METAL 20K
RV212	1-237-037-11	s	RES, ADJ METAL 20K
RV301	1-237-037-11	s	RES, ADJ METAL 20K
RV302	1-237-035-11	s	RES, ADJ METAL 5K
RV303	1-237-037-11	s	RES, ADJ METAL 20K
RV304	1-237-037-11	s	RES, ADJ METAL 20K
RV306	1-237-034-11	s	RES, ADJ METAL 2K
RV307	1-237-034-11	s	RES, ADJ METAL 2K
RV308	1-237-035-11	s	RES, ADJ METAL 5K
RV309	1-237-035-11	s	RES, ADJ METAL 5K
RV310	1-237-035-11	s	RES, ADJ METAL 5K
RV311	1-237-036-11	s	RES, ADJ METAL 10K
RV312	1-237-036-11	s	RES, ADJ METAL 10K
RV313	1-237-036-11	s	RES, ADJ METAL 10K
RV314	1-237-037-11	s	RES, ADJ METAL 20K
RV401	1-237-037-11	s	RES, ADJ METAL 20K
RV406	1-237-034-11	s	RES, ADJ METAL 2K
RV407	1-237-035-11	s	RES, ADJ METAL 5K
RV408	1-237-035-11	s	RES, ADJ METAL 5K
RV409	1-237-035-11	s	RES, ADJ METAL 5K
RV410	1-237-035-11	s	RES, ADJ METAL 5K
RV411	1-237-036-11	s	RES, ADJ METAL 10K
RV412	1-237-036-11	s	RES, ADJ METAL 10K
RV413	1-237-036-11	s	RES, ADJ METAL 10K
RV414	1-237-037-11	s	RES, ADJ METAL 20K
RV501	1-237-030-11	s	RES, ADJ CERMET 100
RV502	1-237-030-11	s	RES, ADJ CERMET 100
RV503	1-237-030-11	s	RES, ADJ CERMET 100
RV504	1-237-030-11	s	RES, ADJ CERMET 100
RV511	1-237-034-11	s	RES, ADJ METAL 2K
RV512	1-237-034-11	s	RES, ADJ METAL 2K
RV513	1-237-034-11	s	RES, ADJ METAL 2K
RV514	1-237-034-11	s	RES, ADJ METAL 2K
RV521	1-237-034-11	s	RES, ADJ METAL 2K
RV522	1-237-034-11	s	RES, ADJ METAL 2K
RV523	1-237-034-11	s	RES, ADJ METAL 2K
RV524	1-237-034-11	s	RES, ADJ METAL 2K
RV531	1-237-034-11	s	RES, ADJ METAL 2K
RV532	1-237-034-11	s	RES, ADJ METAL 2K
RV533	1-237-034-11	s	RES, ADJ METAL 2K
RV534	1-237-034-11	s	RES, ADJ METAL 2K
RV541	1-237-034-11	s	RES, ADJ METAL 2K
RV542	1-237-034-11	s	RES, ADJ METAL 2K
RV543	1-237-034-11	s	RES, ADJ METAL 2K
RV544	1-237-034-11	s	RES, ADJ METAL 2K
RV601	1-237-038-11	s	RES, ADJ METAL 50K
RV602	1-237-038-11	s	RES, ADJ METAL 50K
RV603	1-237-038-11	s	RES, ADJ METAL 50K
RV604	1-237-038-11	s	RES, ADJ METAL 50K
RV605	1-237-033-11	s	RES, ADJ METAL 1K
RV606	1-237-038-11	s	RES, ADJ METAL 50K
RV607	1-237-038-11	s	RES, ADJ METAL 50K
RV608	1-237-038-11	s	RES, ADJ METAL 50K
RV609	1-237-038-11	s	RES, ADJ METAL 50K
RV610	1-237-033-11	s	RES, ADJ METAL 1K
RV611	1-237-033-11	s	RES, ADJ METAL 1K
RV612	1-237-038-11	s	RES, ADJ METAL 50K

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.

(VRP-1P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
RV613	1-237-038-11	s	RES, ADJ METAL 50K
RV614	1-237-036-11	s	RES, ADJ METAL 10K
RV701	1-237-038-11	s	RES, ADJ METAL 50K
RV702	1-237-038-11	s	RES, ADJ METAL 50K
RV703	1-237-038-11	s	RES, ADJ METAL 50K
RV704	1-237-038-11	s	RES, ADJ METAL 50K
RV705	1-237-033-11	s	RES, ADJ METAL 1K
RV706	1-237-038-11	s	RES, ADJ METAL 50K
RV707	1-237-038-11	s	RES, ADJ METAL 50K
RV708	1-237-038-11	s	RES, ADJ METAL 50K
RV709	1-237-038-11	s	RES, ADJ METAL 50K
RV710	1-237-033-11	s	RES, ADJ METAL 1K
RV711	1-237-033-11	s	RES, ADJ METAL 1K
RV712	1-237-038-11	s	RES, ADJ METAL 50K
RV713	1-237-039-11	s	RES, ADJ METAL 100K
RV801	1-237-038-11	s	RES, ADJ METAL 50K
RV802	1-237-036-11	s	RES, ADJ METAL 10K
RV803	1-237-036-11	s	RES, ADJ METAL 10K
RV804	1-237-035-11	s	RES, ADJ METAL 5K
RV805	1-237-035-11	s	RES, ADJ METAL 5K
RV806	1-237-038-11	s	RES, ADJ METAL 50K
RV807	1-237-033-11	s	RES, ADJ METAL 1K
RV901	1-237-038-11	s	RES, ADJ METAL 50K
RV902	1-237-036-11	s	RES, ADJ METAL 10K
RV903	1-237-036-11	s	RES, ADJ METAL 10K
RV904	1-237-036-11	s	RES, ADJ METAL 10K
RV905	1-237-036-11	s	RES, ADJ METAL 10K
RV906	1-237-038-11	s	RES, ADJ METAL 50K
RV907	1-237-034-11	s	RES, ADJ METAL 2K
RV1001	1-237-036-11	s	RES, ADJ METAL 10K
S1	1-571-275-11	s	SWITCH, SLIDE
S2	1-570-134-11	s	SWITCH, SLIDE
S201	1-572-658-21	s	SWITCH, DIGITAL
T501	1-427-545-11	s	TRANSFORMER, RF OUTPUT
T502	1-427-545-11	s	TRANSFORMER, RF OUTPUT
T503	1-427-545-11	s	TRANSFORMER, RF OUTPUT
T504	1-427-545-11	s	TRANSFORMER, RF OUTPUT
X201	1-577-295-11	s	VCO, CRYSTAL 17.734475MHz
X202	1-567-863-11	s	CRYSTAL, 10.664135MHz

FRAME

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6050-807-A	s	HEAD DRUM ASS'Y, DBH-22A-R
1pc	A-6762-454-A	s	ROTARY UPPER DRUM ASS'Y, DBR-22-R
1pc	A-6050-786-A	s	BRUSH ASS'Y
CB1001	⚠1-532-525-31	s	BRAKER, CIRCUIT 6.3A 125V
CN1001	1-561-336-00	s	CONNECTOR, BNC, FEMALE "VIDEO IN"
CN1002	1-561-336-00	s	CONNECTOR, BNC, FEMALE "SC IN"
CN1003	1-561-336-00	s	CONNECTOR, BNC, FEMALE "VIDEO OUT 1"
CN1004	1-561-336-00	s	CONNECTOR, BNC, FEMALE "VIDEO OUT 2"
CN1005	1-561-336-00	s	CONNECTOR, BNC, FEMALE "TC OUT"
CN1006	1-561-336-00	s	CONNECTOR, BNC, FEMALE "TC IN"
CN1007	1-566-616-11	s	CONNECTOR, 4-XLR 3P, FEMALE "AUDIO IN" (FOR UC)
	1-566-617-11	s	CONNECTOR, 4-XLR 3P, MALE "AUDIO IN" (FOR J)
CN1008	1-566-617-11	s	CONNECTOR, 4-XLR 3P, MALE "AUDIO OUT" (FOR UC)
	1-566-616-11	s	CONNECTOR, 4-XLR 3P, FEMALE "AUDIO OUT" (FOR J)
CN1009	1-537-142-11	s	TERMINAL, RFU
CN1010	1-563-890-21	s	CONNECTOR, D-SUB 9P, FEMALE "REMOTE"
CN1011	1-562-245-00	s	CONNECTOR, ROUND TYPE 26P, FEMALE "CAMERA"
CN1012	1-562-160-00	s	CONNECTOR, ROUND TYPE 12P, FEMALE "DUB COMPONENT OUT"
CN1013	1-565-072-11	s	CONNECTOR, ROUND TYPE 4P, FEMALE "EXT DC OUT"
CN1014	1-564-603-11	s	CONNECTOR, XLR 4P, WITH SWITCH, MALE "EXT DC IN"
F1001	⚠1-532-749-11	s	FUSE, 8A 125V
F1002	⚠1-532-749-11	s	FUSE, 8A 125V
H1003	8-825-776-51	s	HEAD EPS244-2103D "AUDIO RP/ERASE/TC"
H1004	8-825-772-61	s	HEAD, ERASE EF291-21A "FULL ERASE"
H1005	8-825-776-31	s	HEAD, PS244-2103F "CONFI"
H1006	8-825-554-83	s	HEAD, CTL PS244-21B "CTL"
J1001	1-507-743-21	s	JACK, MINI STEREO "PHONES"
J1002	1-507-863-51	s	JACK, PHONE STEREO "PHONES"
J1003	1-507-905-00	s	JACK, DC POWER "BP-90"
L1001	1-543-316-21	s	HEAD, SENSING (SMALL TYPE) "TAPE TOP A SENSOR"
L1002	1-543-316-21	s	HEAD, SENSING (SMALL TYPE) "TAPE TOP B SENSOR"
L1003	1-543-316-21	s	HEAD, SENSING (SMALL TYPE) "TAPE END SENSOR"
M1001	A-6737-186-B	s	MOTOR ASS'Y, DRUM
M1002	8-835-437-01	s	MOTOR, DC SCV-0201A "CAPSTAN"

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.

(FRAME)

Ref. No. or Q'ty	Part No.	SP	Description
M1003	8-835-441-01	s	MOTOR R432276751A "T-REEL"
M1004	8-835-440-01	s	MOTOR DN20-Q7Z1B "THREADING"
M1005	8-835-441-01	s	MOTOR R432276751A "S-REEL"
M1006	8-835-179-01	s	MOTOR, DC MCB2B15 "CASSETTE COMPARTMENT"
ME1001	1-520-495-11	s	METER, LEVEL "CH-1/R-Y"
ME1002	1-520-495-11	s	METER, LEVEL "CH-2/B-Y"
ME1003	1-520-495-11	s	METER, LEVEL "CH-3/Y"
ME1004	1-520-495-41	s	METER, LEVEL "CH-4/VIDEO/BATT"
PM1001	1-454-334-61	s	SOLENOID "T-REEL BRAKE"
PM1002	1-454-334-61	s	SOLENOID "S-REEL BRAKE"
PM1003	1-454-383-21	s	SOLENOID "PINCH"
RV1001	1-241-522-11	s	RES, VAR CARBON 10K "PHONES LEVEL"
RV1002	1-241-521-11	s	RES, VAR CARBON 5K "VIDEO LEVEL"
S1001	1-554-355-00	s	SWITCH, TOGGLE "POWER"

13-4 PACKING MATERIALS AND SUPPLIED ACCESSORIES

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6772-548-A	o	EXTENSION CABLE, EX-299
1pc	3-171-976-01	s	CASE, CARRYING
1pc	3-704-296-01	o	BAG (STANDARD), PROTECTION

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.

13-5 OPTIONAL FIXTURE

Part No.	SP	Description
J-6001-820-A	o	UPPER DRUM ECCENTRICITY ADJUSTMENT TOOL (3)
J-6001-830-A	o	UPPER DRUM ECCENTRICITY ADJUSTMENT TOOL (2)
J-6001-840-A	o	UPPER DRUM ECCENTRICITY ADJUSTMENT TOOL (1)
J-6035-070-A	o	EXTRACTION TOOL
J-6327-850-A	o	DIAL TENSION GAUGE (50g)
J-6080-840-A	o	SMALL MIRROR
J-6086-570-A	o	REFERENCE FLAT PLATE
J-6087-000-A	o	UPPER DRUM ECCENTRICITY ADJUSTMENT TOOL (5)
J-6031-830-A	o	MULTI CONNECTOR CABLE (DOBNC)
J-6031-840-B	o	MULTI CONNECTOR CABLE (CIBNC)
J-6152-450-A	o	WIRE CLEARANCE GAUGE SET
J-6190-800-A	o	TENSION REGULATOR VERTICAL CHECK TOOL
J-6321-500-A	o	TAPE GUIDE ADJUSTMENT DRIVER
J-6325-530-A	o	UPPER DRUM ECCENTRICITY ADJUSTMENT TOOL (6)
J-6326-530-A	o	CASSETTE REFERENCE PLATE (L)
J-6326-750-A	o	REEL TABLE HEIGHT GAUGE
2-034-697-00	o	CLEANING PIECE
3-702-390-01	o	DIHEDRAL SCREWDRIVER (4 ϕ)
8-960-096-51	o	ALIGNMENT TAPE, CR2-1B PS
8-960-096-86	o	ALIGNMENT TAPE, CR8-1B PS
8-960-096-91	o	ALIGNMENT TAPE, CR5-1B PS
8-960-098-44	o	ALIGNMENT TAPE, CR5-2A PS
8-960-098-45	o	ALIGNMENT TAPE, CR8-1A PS
9-911-053-00	o	THICKNESS GAUGE
9-919-573-01	o	CLEANING FLUID
STANDARD PRODUCTS		HEAD DEMAGNETIZER (HE-4) TENTEL METER (T2-H7-UMC)

NOTE: Please see pages 13-30 through 13-32 for the parts that are not listed in the parts list.